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Carter & Burgess  
Categorical  
exclusion for STPP  
6-1(59)15 West of  
Trout Creek,  
Montana 200,  
Sanders County,

**CATEGORICAL EXCLUSION  
for  
STPP 6-1 (59) 15**

**West of Trout Creek  
Montana 200  
Sanders County, Montana  
Control No. 2133**

STATE DOCUMENTS COLLECTION

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Submitted Pursuant to:

**23 CFR 771.117(d)  
and  
ARM 18.2.261 Sections 75-1-103 and 75-1-201, MCA**

Submitted By:

**CARTER & BURGESS, INC.  
for the  
MONTANA DEPARTMENT OF TRANSPORTATION**

January 1996

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Categorical exclusion for STPP 6-1(59)15



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CE Concurrence Request Letter to Hank Honeywell, FHWA



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January 17, 1996

Mr. Hank D. Honeywell, Division Administrator  
Federal Highway Administration (FHWA)  
301 So. Park, Drawer 10056  
Helena, MT 59626

Subject: STPP 6-1(59) 15  
West of Trout Creek  
Control No. 2133

This is a request for the FHWA's concurrence that this proposed project meets the criteria for classification as a Categorical Exclusion under the provisions of 23 CFR 771.117(d). This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, M.C.A.). A project location map is attached.

This proposed project consists of leveling the existing surface and constructing an asphalt plant mix overlay followed by a seal and cover. Safety enhancement work will involve slope flattening, upgrading guardrail and striping, removing trees and other objects near the roadway and providing mail box turnouts. A finished surface width of 9.6 meters (31.5 feet) is proposed, with minor shoulder widening to place this overlay on the existing 9.8 meter (32 feet) top. The project area is rural with several residences located within 61.0 to 76.2 meters (200 to 250 feet) of the right-of-way, with the closest residence located within about 22.9 to 30.5 meters (75 to 100 feet) of the existing right-of-way. The proposed project would not require any land acquisition. All improvements would be made inside the MDT right-of-way. No existing structures would be displaced as a result of the proposed project.

The location of this project is Montana 200 in Sanders County from MP 14.7, approximately 1.13 kilometers (0.7 miles) west of the Noxon Road junction, extending southeast 13.2 kilometers (8.2 miles) along the Noxon Reservoir to MP 22.9.

The intent of this project is to prolong the useful life of the pavement, improve the roadway and to enhance safety while utilizing the present-traveled-way (PTW) to achieve a 90 kilometers per hour (55.9 mph) design speed.

### Section 1: Impact Areas With No Adverse Effect

This proposed project has been evaluated for, and does not have any adverse effect on the following environmental areas of concern:

|                               |                                                |
|-------------------------------|------------------------------------------------|
| Prime & Unique Farmlands      | USDOT - 4(f)/NL&WCF - 6(f) Act                 |
| Floodplains (E.O. 11988/FEMA) | Air Quality                                    |
| Hazardous Waste               | Social/Economic/ Environ. Justice (E.O. 12291) |
| Historical/Cultural Resources | T&E Species                                    |
| Changes in Land Use           |                                                |

Hazardous Waste - Ken Plett, Montana Department of Environmental Quality (MD) Waste Management Division, found no record of any hazardous waste in the right-of-way adjoining properties within the project limits. The leaking underground storage tank (LUST) list provided by Bill Hammer, Case Officer for the Montana State UST Program reveals no LUST tanks within the project impact area.

Noxon Station is a gasoline filling station with underground storage tanks located approximately 0.4 kilometer (0.25 mile) east of the Noxon bridge on the north side of MT 200. According to a letter sent from the MDEQ UST Program, the owner of the station has not paid her 1995 tank registration fees and is not in compliance with current piping standards. Noxon Station is not a LUST site, however the tanks on that property do not have the proper automatic line leak detection equipment. See Blazicevich letter dated September 26, 1995, located in Appendix A. Because the tanks have not been determined to be leaking, no hazardous waste impacts are anticipated from this site.

The proposed road improvement area along MT 200 falls into two separate fire districts which meet at Milepost 19. According to Jean Gerstenberger, record keeper for Trout Creek Fire District, there are no records of, nor can she recollect, any environmentally hazardous events that the fire department has been involved in. Fire Chief Nate Hall of the Noxon Fire District also was not aware of any spill or accident involving gas or chemicals along MT 200 between Milepost 15 to 19. Finally, Dave Reynolds, County Fire Coordinator for the Sanders County Fire Protection District (which includes both Trout Creek and Noxon), confirmed that there are no records of any environmentally hazardous events that the fire departments from either Noxon or Trout Creek would have been involved in.

Aimee Reynolds of the MDEQ Environmental Remediation Division, Superfund Program, researched the proposed impact area and found no Superfund National Priority List (NPL) or non-NPL sites.

Mike Pasichnyk, MDEQ Water Quality Division, found no records of poor water quality reported in the project study area.

Prime Farmlands - No additional right-of-way is required. Therefore, the project will not affect prime and unique farmlands.

Floodplains - A floodplain delineated under Federal Emergency Management Administration (FEMS) criteria along the Clark Fork River is not encroached upon by this proposed project. Sanders County Administers this floodplain for FEMA, and a Floodplain Development Permit will not be required for this project.

This proposed project will not promote or encourage development within this delineated floodplain, nor increase flood liability hazards from its construction. This proposed project is therefore considered to be in compliance with E.O. #11988.

Air Quality - This proposed project is located in an "unclassifiable" /attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's **Final Rules** of November 24, 1993 on Air Quality conformity. Therefore, this proposed project complies with Section 176(c) of the *Clean Air Act* as amended **42 U.S.C. 7521(a)**.

Historical/Cultural Resources - A Cultural Resource Inventory Report entitled, *Report of a Cultural Resources Inventory of the Noxon East and West Project Corridor, Along Highway 200, Sanders County, Montana* dated August 11, 1994 was prepared by HRA for MDT. The inventory revealed five previously undocumented historic resources for the corridor which were recommended to be ineligible for inclusion in the NRHP. The Montana SHPO concurred with this recommendation in a letter dated August 18, 1994. A copy of the SHPO's letter is contained in Appendix A - Agency Correspondence. Connie Reid, Assistant Forest Archaeologist has reviewed the cultural resource inventory report for this project and concurs with the adequacy of the inventory on the small parcel of federal land traversed by this project. A copy of this letter is contained in Appendix A.

Changes in Land Use - This project will not induce substantial land use changes or promote unplanned growth. There will be no substantial effects on access to adjacent properties or present traffic patterns.

Social/Economic/Environmental Justice - The proposed project will not affect, separate, isolate any distinct neighborhoods, low income groups, ethnic groups, or other special groups of people. No displacements or relocations will be caused by the project. A short-term benefit that may be derived from this project is employment for some area residents during construction.

USDOT - 4(f)/NL&WCF - 6(f) Acts - The proposed project will require no additional right-of-way. The proposed project will not require the use of any publicly owned land from a public park, recreational area, wildlife and waterfowl refuge lands or historic sites, therefore a 4(f) statement will not be required. No Land and Water Conservation Funds have been used on this property, therefore no 6(f) impacts will result from project implementation.

Threatened/Endangered Species - The U.S. Department of the Interior's Fish & Wildlife Service (USF&WS) was contacted for identifying Federally-listed Threatened/Endangered Species under *Section 7(a)* of the *Endangered Species Act* (16 U.S.C. 1531 - 1543). The following Threatened/Endangered Species were identified by both the USF&WS, and the **Biological Resources Report** (see Attachment 1) as being in the vicinity of this proposed project:

The following Threatened/Endangered Species may occur in the general project area:

The bald eagle (*Haliaeetus leucocephalus*), is a threatened raptor species in Montana.

The peregrine falcon (*Falco peregrinus*) is an endangered raptor species in Montana.

The gray wolf (*Canis lupus*) is an endangered predator species, while the grizzly bear (*Ursus arctos horribilis*) is a threatened predator species in Montana.

As stated in the Biological Resources Report, implementation of the proposed action will not affect the grizzly bear or gray wolf.

The project is not likely to adversely affect either the peregrine falcon or the bald eagle, provided that certain construction-related measures are implemented as described in the Biological Resource Report.

## **Section 2: Impact Areas With Minor Effect**

The proposed project will have a minor effect on the following environmental area(s):

Stormwater Runoff - Additional impervious surfaces, including mailbox turnouts, will be constructed as part of the proposed project. The increase in surface runoff is expected to be insignificant, due to the relatively small amount of impervious surface added as part of this project.

Wetlands/Section 404 Clean Water Act - A total of 0.15 hectares (0.38 acres) of wetlands will be subject to unavoidable impacts of this project. Two potential mitigation sites have been identified for the loss of these wetlands. A full description of wetland impacts and potential mitigation is provided in the Wetlands Finding, included as part of the Biological Resource Report in Attachment 1 of this document.

Noise - There will be minor, temporary noise impacts to nearby residences during the construction phase of this project. Design year noise levels will not exceed the Noise Abatement Criteria (23 CFR Part 722). Traffic noise level increases will be insignificant with the construction of this project.

Utilities - There will be some minor involvement with underground telephone lines.

Stream Preserv./Water Quality - Within the project limits, US Highway 200 parallels two reservoirs and crosses several creeks. There may be some sedimentation which could occur as a result of construction activities; however, the implementation of standard procedures found in the MDT Highway Construction Standard Erosion Control Work Plan will alleviate any impacts associated with sedimentation.

## **Section 3: Permits Required**

Permits Required - The following permits will be acquired prior to any relevant disturbance:

This proposed project will be in compliance with the provisions for both Water Quality under 75-5-401(2) M.C.A. for *Section 3(a)* authorizations, and Stream Protection under 87-5-501 through 509 M.C.A., inclusive.

A *124SPA Stream Protection* Permit will be required by the MDFW&I and

This proposed project will require the following permits under the *Clean Water Act* (33 U.S.C. 1251 - 1376):

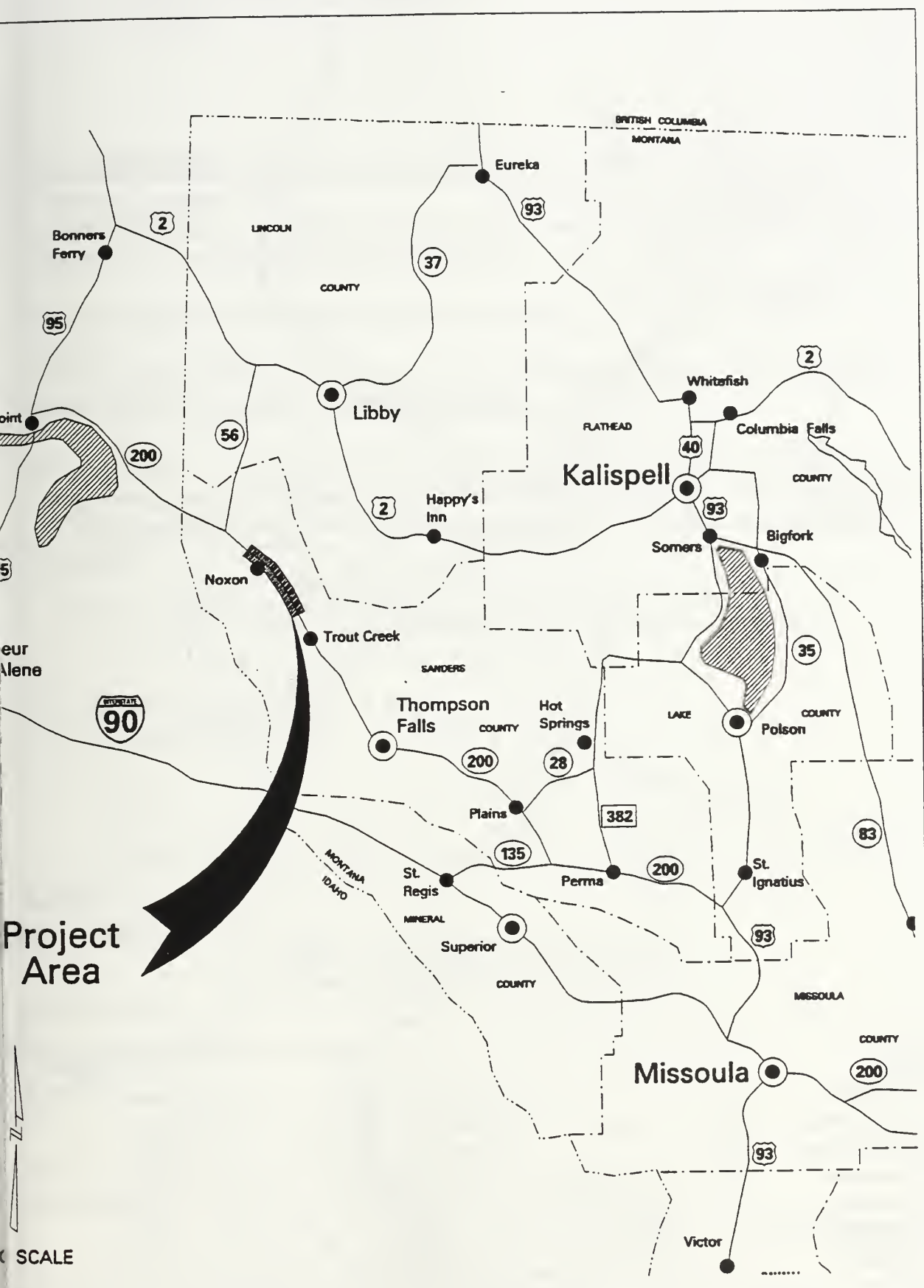
A *Section 402*/Montana Pollutant Discharge Elimination System permit from the Montana Dept. of Health & Environmental Science's Water Quality Division.

A *Section 404* permit from the U.S. Army - Corps of Engineers. The COE will determine if this proposed project qualifies for a "Nationwide" 404 permit under the provisions of 33 CFR 330.

All work will also be in accordance with the *Water Quality Act* of 1987 (P.L. 100-4), as amended.

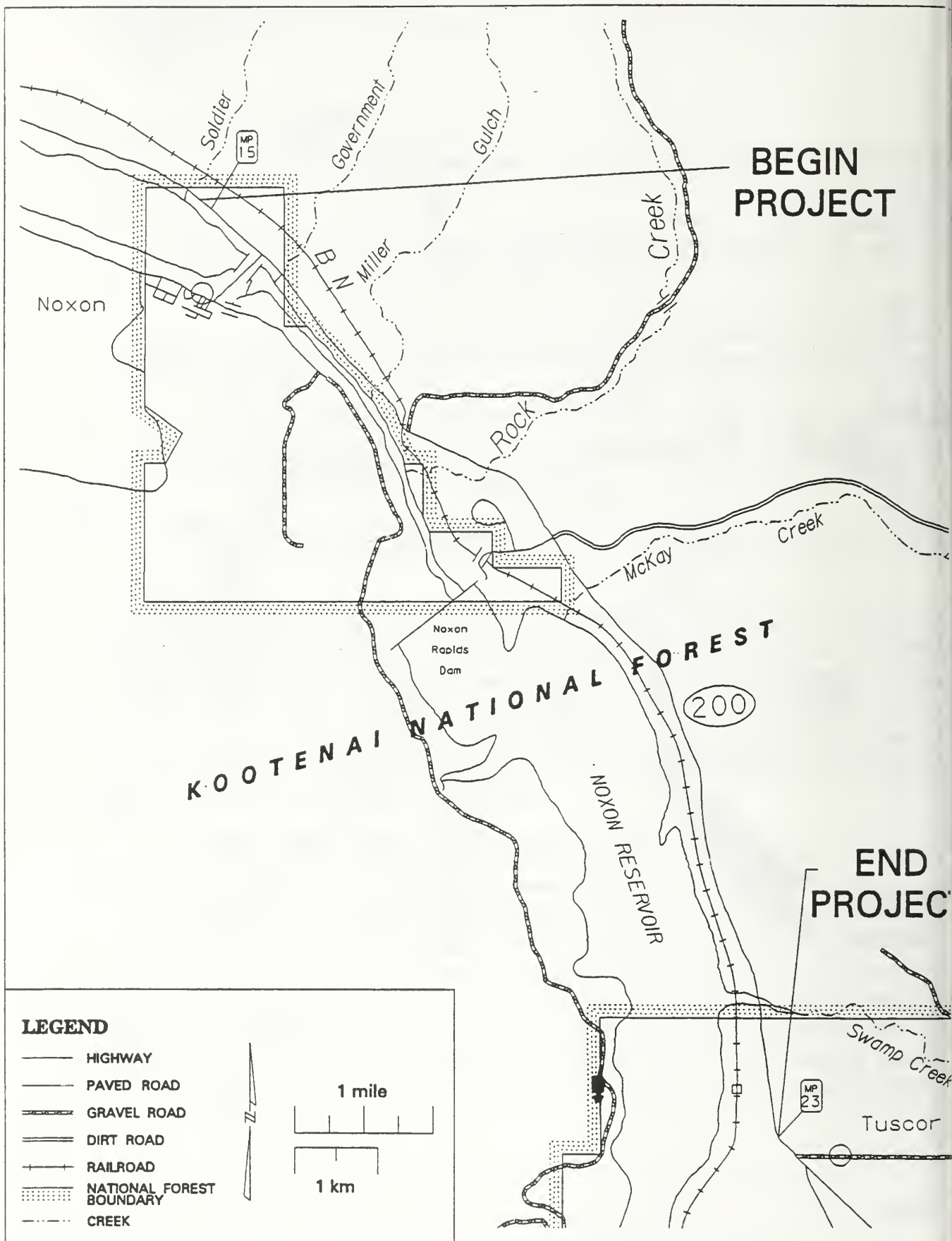
An Erosion Control Plan will be submitted to the Montana Department of Health & Environmental Science's Water Quality Division in compliance with their Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314) for this proposed project.) Best Management Practices will be included in the design of this Plan using guidelines as established in MDT's Highway Construction Standard Erosion Control Workplan. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

In accordance with 7-22-2152, and 60-2-208 M.C.A., MDT will re-establish a permanent desirable vegetation community along all areas disturbed by the proposed construction. A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These guidelines will be in conformance with the Sanders County Weed Control Permit Application. These specifications will include instructions on seeding methods, seeding dates, types and amounts of mulch and fertilizer, along with seed mix components. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for this proposed project will be forwarded to the Sanders County Weed Board for approval.



st of Trout Creek

REGIONAL MAP  
Figure 1



**West of Trout Creek**

January 17, 1996

Page 9

Americans With Disabilities Act - Does not apply to this project.

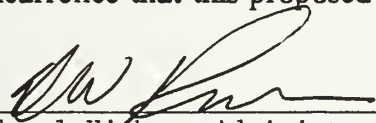
A minor amount of construction permits will be needed for this proposed project. There will be some telephone utility involvement.

A news release will be submitted to the local newspaper.

U.S.D.A. Forest Service was requested to be a Cooperating Agency on this proposed project under the provisions of 23 CFR 771.111(d).

In accordance with 23 CFR 771.117(a), this action will neither individually or cumulatively, have any significant environmental impacts. Therefore, we are requesting FHWA's concurrence that this proposed project is properly classified as a Categorical Exclusion.

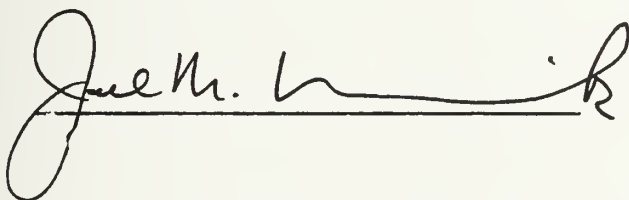
Concur

  
Federal Highway Administration

Date

1-29-96

Joel M. Marshik, P.E., Manager  
Environmental Services



Date

Jan 19, 1996

"ALTERNATIVE ACCESSIBLE FORMATS OF THIS  
DOCUMENT WILL BE PROVIDED ON REQUEST."

JMM:KMH:

Attachments

cc: James Weaver, P.E. - District Administrator  
Carl S. Peil, P.E. - Preconstruction Engineer  
Joseph P. Kolman, P.E. - Bridge Engineer  
Thomas E. Martin, P.E., Chief, Right-of-Way Bureau  
David W. Jensen, Supervisor - Fiscal Programming Section  
Mark A. Wissinger, P.E., Supervisor - Contract Plans Section  
Joel M. Marshik, P.E., Manager - Environmental Services  
Jeanette Lostracco, AICP, Carter & Burgess, Inc.



## Appendix A - Agency Correspondence



# State Historic Preservation Office

Montana Historical Society

1410 8th Avenue • PO Box 201202 Helena, MT 59620-1202



RECEIVED

AUG 24 1994

August 18, 1994

ENVIRONMENTAL BUREAU

Don J. Stockstad, Acting Manager  
Environmental Services  
Montana Department of Transportation  
Helena, MT 59620-1001

STPP6-1(59)10  
Noxon - East & West  
Control No. 2133

Mr. Gordon:

Thanks for the opportunity to comment on the findings of a  
thematic cultural resource survey for the project identified  
above.

We concur that the following sites do not appear to meet National  
Register of Historic Places Criteria of Significance:

- A359
- A360
- A362
- A363
- A364

Sincerely,

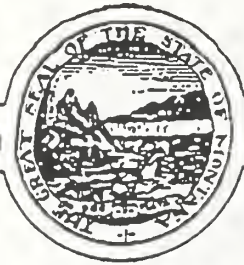
*Maull*

Cella Sherfy  
Montana State Historic Preservation Officer

cc: COMP, MDOT

DEPARTMENT OF  
ENVIRONMENTAL QUALITY  
Waste Management Division  
Underground Storage Tank Program  
(406) 444-5970

FAX # (406) 444-5970



STATE OF MONTANA

OFFICE LOCATION: 2209 PHOENIX AVE.  
HELENA, MONTANA

MAILING ADDRESS: PO BOX 200907  
HELENA, MT 59620

September 26, 1995

Sharlene Fitchett  
PO Box 35  
Heron, MT 59265

SUBJECT: Change-of-Ownership, Facility 45-09265, Noxon Station

site is within  
triangle formed by  
Hwy 200, Noxon C  
Limits &  
Wetlands #4 Le  
line.

Dear Ms. Fitchett:

Our office has been informed that you are the owner of the above-referenced underground storage piping systems. For your reference, we have enclosed a copy of the notification form which is currently on file for this property. In order to change the ownership of the underground storage piping, please complete and return the enclosed notification form.

The 1995 tank registration fees of \$150 have not been paid. You may enclose payment with the notification form or we will send an invoice after we receive the notification form.

I have also enclosed the rules for management and operation of the underground storage piping. Leak detection requirements for the piping are located in the pressurized piping section of the booklet, page 8, ARM 16.45.402(2)(a)(i) and (ii). As we discussed, the annual line tightness test should be performed immediately. You will also need to modify the present piping system to add automatic line leak detection equipment, if it is not present. The enclosed information indicates a few options for adding automatic line leak detection to your piping systems. Any modification of the underground piping will require a permit from the Department.

Please contact the State Fire Marshal for the aboveground tank regulations, PO Box 20141 Helena, MT 59620, 1-406-444-2050.

inspection reports indicated  
it is not present

Correction of the leak detection deficiencies is also important since it may jeopardize eligibility to participate in the Montana Petroleum Tank Release Cleanup Fund. If you have any questions, please contact me at the address above or call (406)444-5970.

Sincerely,

*Theresa J. Blazicovich*  
Theresa J. Blazicovich  
Regulatory Program Lead

cc: Jan Ivers, Sanders County

enclosures: Copy of Notification, Notification Form, UST Management and Operation Rules  
Leak Detection for Underground Piping to ASTs, Permit Application

States  
ment of  
ulture

Forest  
Service

Kootenai NF

506 US Highway 2 West  
Libby, MT 59923

---

Reply to: 2360

Date: 10/9/95

ate Lostracco  
and Burgess  
ch Street Mall  
el700  
e, CO 80202

s. Lostracco:

ae reviewed the cultural resource inventory report for the Montana  
rment of Transportation Noxon East and West Project completed by  
oical Research Associates. We concur with the adequacy of the inventory  
n small parcel of federal land traversed by this project. A springboard  
osite was located in the project area and was determined ineligible to the  
al Register of Historic Places. We understand that you will be sending  
opy of the Montana State Historic Preservation Officer concerning this  
Thank you.

o have any questions, please contact me at 406-293-6211.

ely,



I REID  
sant Forest Archaeologist



## Appendix B - Biological Resource Report



## **West of Trout Creek Biological Resource Report**

### **Executive Summary**

The proposed West of Trout Creek project entails the resurfacing of 13.1 kilometers (8.2 mi.) of U.S. Highway 200, to include such significant safety enhancements as slope flattening, guardrail upgrade, and clear zone improvement.

The project is not likely to adversely affect the endangered peregrine falcon, the threatened bald eagle, or their associated habitats. In addition, the action is considered to have no effect for the remaining threatened and endangered species in this portion of the state. Although the nature of this project is not particularly impactive, elected construction staging areas should avoid the bald eagle nesting territory in the vicinity of Milepost 13 and their various foraging/perch sites found immediately west of the Noxon bridge. No impacts to remnant bull trout or west slopes cutthroat populations are anticipated from the recommended scope of work.

The most significant biological concern may well be for the numerous **sensitive species of concern** which inhabit this segment of the Clark Fork River canyon. An additional concern is for the protection of water quality throughout planning and construction, especially for those portions involving streams and wetlands. There is wetland involvement with this project that is addressed in a separate Wetland Finding.

### **Introduction**

The following report discusses the terrestrial and aquatic resources present in the vicinity of Noxon and Cabinet Gorge Reservoirs. Biological resources are addressed, as are the possible impacts from proposed construction activities. This report is based on a field survey conducted on 16 October 1995, correspondence and consultation with federal and state agencies, and a review of pertinent literature.

### **General Area Description**

That portion of Clark Fork River valley found between the Cabinet Mountains to the northeast and the Bitterroot Range to the south-west, and lying between the Montana-Idaho line and Thompson Falls, serves to describe the broader area. This general locale encompasses the Kootenai National Forest and portions of the Kaniksu National Forest administered by the Kootenai National Forest.

Although never directly affected by glaciation, this valley was periodically subjected to catastrophic floods from glacial Lake Missoula which scoured canyon walls of topsoils

to expose much of the bedrock so visible today. The river, now at some 820 elevation meters (2690 ft.), was more recently and considerably tamed in the 1950's with construction of two hydroelectric dams which created the Noxon and Cabinet Gorge Reservoirs. The main river and its tributaries are responsible for much of the biotic diversity found in this portion of the Clark Fork valley.

Aside from Highway 200 and the Montana Rail Link line which both follow the river the area remains lightly developed structurally. The two small communities of Noxon (pop. 1300) and Trout Creek (pop. 900) bracket the highway project, with low density residential development present along the highway and surrounding reservoir shores

Not readily conducive to the farming of more traditional crops, the land does support a number of cattle ranches with haying operations. Logging and mining have traditionally been part of the economy as well, with recent gains in trades and services, recreation and tourism. Currently under study is the locally controversial ASARCO silver mini operation proposed for the Rock Creek drainage. The suggested location would place future mining-associated activities well within one kilometer (0.62 mile) of the highway project area.

### **Project Area/Description**

Situated within Sanders County, the proposed project begins at Milepost (MP) 14.7 on U.S. Highway 200 (FAP 6) and extends easterly for 13.1 kilometers. (8.2 miles) to MP 22.9. Here, the highway parallels the north shores of the two reservoirs as it traverses the valley's rolling, densely timbered terrain; it also crosses significant creeks and wetlands that issue from the Cabinet Range. Classified as a minor arterial, this highway section possesses numerous public and private access roads in addition to several bridges.

The stated purpose of the project is to extend pavement life, generally improve the roadway, and enhance overall safety while utilizing the present-traveled-way (PTW) to achieve a 90 kilometers per hour (55.9 mph) design speed. A finished surface width of 9.6 meters (31.5 feet) is proposed, with minor shoulder widening employed to place this overlay on the existing 9.8 meter (32.2 foot) top.

Of interest is the project site's accident history which reveals a significant 31 percent animal collision rate in comparison to a statewide average of 10 percent, a condition largely attributable to an abundance of white-tailed deer. According to Mr. Bill Nelson, MDT's Maintenance Foreman for the Noxon Section, the distribution of deer kills within the project study area along US Highway 200 are not clustered in any one particular location. This statement, however, cannot be substantiated by any statistical data collected by MDT to date. The first step in addressing the high animal collision

rate in this area would be to recommend that a standardized and more detailed system of record keeping be established and implemented by MDT. Currently, the quality of road kill data available is not sufficient to recommend appropriate preventative measures. MDT also reports accidents involving over-turned vehicles to be 10 percent higher than the state average. Safety enhancement work would include slope flattening, guardrail upgrade, clear zone improvement, and mailbox turn-outs. Striping, delineation and signing would also be upgraded, to include bridge rail revisions.

The suggested flattening of fill slopes would create slight encroachments upon adjacent wetlands (ref. Wetland Finding) and possibly require the acquisition of additional right-of-way (ROW). Various underground telephone and utility cables and overhead utility poles may also require relocation with future slope modifications.

No prime or unique land/aquatic resources should be affected by this action, nor are any significant land use changes anticipated as a result of this project.

## **Study Methods**

### **Agency Consultation and Literature Review**

Information pertaining to endangered, threatened, sensitive and rare wildlife, fish, herptiles, and vegetative species was sought from the U.S. Fish & Wildlife Service (USFWS), U.S. Forest Service (USFS), Montana Department of Fish, Wildlife, and Parks (MDFWP), and the Montana Natural Heritage Program (MNHP). A literature review was conducted and the Montana Rivers Information System (MDFWP 1988) queried to gather biological resource data for the pertinent tributaries of the Clark Fork River. The MNHP database was queried to collect sensitive species data.

### **Field Survey**

A field survey was conducted on October 16th, 1995, by both walking and driving the 13.1 k. (8.2 mi.) route. Vegetation communities, wetlands, wildlife, and fisheries resources, as well as habitat utilization were evaluated. Personal interviews were also conducted that day with biologists of the USFS Cabinet Ranger District.

## **Study Results**

### **Resource Classifications**

The following section describes the various biological resources just mentioned and assesses the possible impacts that may occur as a result of the proposed project. Rare

and sensitive species as listed by the Montana Natural Heritage Program are addressed, as are several with U.S. Forest Service listing. Those species monitored by the U.S. Fish & Wildlife Service and listed as endangered or threatened under the Endangered Species Act are considered separately within this report.

## Biological Resources

### Vegetation

Contributing to the diverse setting, the area's vegetation is equally varied as can be seen from the mixed conifer stands of lodgepole and ponderosa pine, Douglas and grand fir, western larch, western hemlock, and western red cedar. Tree cover along the immediate highway corridor is commonly dense and uniform, albeit absent of any old growth.

Riparian covers comprised of deciduous shrubs and saplings too numerous to list are associated with virtually all of the creeks and tributaries within the project area. Relevant wetlands are also largely riparian in composition. These vegetative communities combine to provide a broad base of habitats for an especially wide array of wildlife, soon to be discussed.

**Sensitive Species of Concern.** The immediate project area also hosts two sensitive plant species of concern as listed with the Montana Natural Heritage Program. The first, the Yerba Buena, is a woody rhizome native to coniferous woods chiefly west of the Cascades. Globally ranked G4- "Apparently secure, though it may be quite rare in parts of its range, especially at the periphery.", it has more significantly been given a state ranking of S2- "Imperiled because of rarity or because of other factors demonstrably making it very vulnerable to extinction." (MNHP, 1995). In this instance, the plant's occurrence is approximately 0.8 kilometers (0.5 mi.) from Highway 200 and is expected to be beyond the range of any construction-related impacts.

MNHP's second sensitive species is the Pyramidal Spiraea, a low growing forb which is classed as "a hybrid taxon recurrent on the landscape, regardless of degree of offspring sterility." (MNHP, 1995). Although construction-related activities in its proximity are very unlikely, the plant's singular occurrence at the mouth of McKay Creek suggests the following precautionary requirement:

- No staging/construction activities are to occur in the vicinity of the culvert confluence of McKay Creek and Noxon Reservoir.

A sensitive plant species with USFS listing is the Crested Shield-fern. Located in the middle to upper reaches of Rock Creek, this species will not be affected by the

proposed action. Although not in the project area, two sensitive plant species with USFS listings that have been found in the general area are the Wool-grass and the Common clarkia. Neither of these species will be affected by the proposed action.

### Wildlife

This particular geographical area hosts almost as wide an array of wildlife as one is likely to find in the state. Virtually all of the larger ungulates are present, to include Rocky Mountain Bighorn sheep and goats. Large carnivores such as grizzly and black bear, wolf and coyote, mountain lion, bobcat, and possibly lynx are also represented. Increasingly uncommon furbearers such as wolverine, fisher and pine marten are known to occur in this portion of the corridor as well.

The more visible wildlife user groups are those associated with the riverine habitats of the Clark Fork and its tributaries.

This complex supports many varieties of neotropical (song) birds in addition to numerous waterfowl and shorebirds during the appropriate months. Also present is a significant raptor population of such species as bald eagle, osprey, peregrine falcon, and assorted buteo and accipiter hawks. Such corvids as ravens, crows, and magpies are present and doing well with the currently elevated vehicle-deer kill (Hidy, pers. comm.).

The survey, having been conducted in October, precluded sightings of amphibians and reptiles, though several species are known to occur in the project area. Their association with habitats largely removed from the roadway likely negates the possibility for significant impacts; and consultation with the various agencies did not indicate any specific herptile involvement/ conflict within the highway corridor.

The paucity of functional habitats immediately along the existing highway will somewhat reduce the potential for significant wildlife impacts with future construction. This is partially due to the limited presence of brushy cover within the ROW, which can often be an attractant to many users such as songbirds and deer. MDT's stated intention in improving these clear zones is to reduce this attraction for wildlife while increasing the sight distance for motorists. Such precautionary measures are believed to at least make any deer/vehicle encounters more avoidable and, in the worst scenario- perhaps more survivable as well. Minor loss of brushy cover and the short term displacement of various songbirds and small rodent-like mammals will result from the improvement of clear zones.

**Sensitive Species of Concern.** Numerous sensitive species of concern are either known or suspected to occur in this portion of the Clark Fork drainage. This list (USFS)

would include the fisher, harlequin duck, lynx, wolverine, Townsend's big-eared bat, northern bog lemming, black-backed woodpecker, Couer d'Alene salamander, boreal owl, and flammulated owl. Because of their preference for more secluded montane habitats, many of these species are distanced from the immediate project area.

Of these, the harlequin duck is likely to be the closest known inhabitant to the project with its presence along portions of Rock Creek, and possibly Swamp Creek as suspected by USFS. These birds are unique sea ducks that migrate inland to mountain streams during spring for the nesting and rearing of broods. They also exhibit a strong fidelity to return to the same streams year after year, foraging for aquatic insects and fish roe in fast flowing water. Not surprisingly, harlequin ducks seem to be intolerant of even occasional human activity, causing them to seek out the more isolated stream reaches. Their presence along Rock and Swamp Creeks in the vicinity of highway crossings is not suspected because of this intolerance.

Also worth mentioning because of its utilization of various habitats, is the Townsend big-eared bat. Though caves and abandoned mine tunnels are key habitat components for roosting and nursery sites, the bats occasionally summer roost in tree cavities, abandoned buildings, and bridges. Wetlands and moist sites are generally productive foraging areas for the bats as they produce an abundance of insects. The population status of these bats is not known for the general area, but their observed presence in the nearby Bull River corridor suggests probable use as summer range by the species (Johnson, pers. comm.).

In light of the available information and project scope, no special restrictions upon construction are being requested for sensitive wildlife species. Any observation of these species in the immediate project area should be brought to the attention of the USFS, Cabinet Ranger District.

### Fisheries

The river's fishery became irrevocably changed in the 1950's with construction of the two hydroelectric dams. Their completion denied upstream access to lacustrine populations of such species as bull trout from Lake Pend Oreille. The reservoirs which formed encouraged the often illegal introduction of non-native species associated with fishing recreation. Consequently, approximately sixteen species of game and non-game fish are present though commonly confined to the main river. Creeks of the immediate project area possess bull, brook, Westslope cutthroat and rainbow trout.

**Sensitive Species of Concern.** Two persistent native trout species, the bull and Westslope cutthroat, are presently listed as sensitive species of concern with the various agencies. They now largely exist as remnant, and often isolated, mid- to upper

reach populations due to past wildfires and logging within the riparian zones (OEA Research, 1995). The resulting fragmentation and change has left many of the creeks' lower reaches without water for much of the year. This condition is typical of McKay and Swamp Creeks, and to a lesser extent in Rock Creek (Huston, pers. comm.).

**Swamp Creek.** Joining Noxon Reservoir near Milepost 22.1, lower portions of this creek show intermittency and no longer support viable bull trout populations. Largely isolated populations of Westslope cutthroat trout are present in the mid- to upper reaches.

Construction impacts are expected to be minimal with the suggested bridge rail revisions. Slope flattening may also create slight encroachments upon adjacent wetland.

**McKay Creek.** Accessing Noxon Reservoir by mainline culvert at Milepost 18.9, this creek also suffers from intermittency. Flowing for only three to four months of each year, it supports isolated Westslope cutthroat populations in the perennial sections some three miles upstream of the highway.

MDT hydraulics reports again indicate possible encroachments of floodplain at this culverted highway crossing. Guardrail revision is also recommended by MDT as is modification of the culvert's inlet point which is apparently being headcut by the existing channel.

**Rock Creek.** Crossing through mainline culvert at Milepost 17.7, Rock Creek accesses the Cabinet Gorge. Although its fishery is still impacted by intermittency, it is unique from those previously discussed in that it still sustains occasional migrations of bull trout from the lower reservoir. There is also record of rainbow/cutthroat trout hybridization in the upper reaches of Rock Creek (Huston, pers. comm.).

In light of lower reach conditions, construction impacts to the creek are likely to be insignificant. Work at this crossing should remedy the large scour hole on the downstream end of this large culvert, thus improving fish passage.

MDT projects the live-channel work to be minimally invasive. They have also indicated an intention to not extend mainline culverts and to avoid channel modifications where possible. The project is further subject to Montana's Stream Protection Act and permitting process.

Protection of water quality is appropriate for all hydraulics involvement as is the preservation of, or improvement to fish passage with culvert modifications.

(A very in-depth reporting of Rock Creek fisheries is found within the Rock Creek Biological Evaluation for Sensitive Species, recently completed by OEA Research, Inc. of Helena.)

### Threatened and Endangered Species

Nine species within Montana have been classified by USFWS as either threatened or endangered. Under Section 7 of the Endangered Species Act (ESA), as amended, activities conducted, sponsored, or funded by federal agencies must be reviewed for their effects upon species federally listed or proposed for listing as threatened and endangered. The endangered species are the gray wolf, peregrine falcon, whooping crane, black-footed ferret, and Interior least tern. The continental populations of grizzly bear, bald eagle, piping plover, and a sole plant species, the water howellia, are listed as threatened.

Of these species, the Interior least tern, black-footed ferret, whooping crane, piping plover, and water howellia are not considered to be endemic to the project area. Under this premise, and following personal communications and literature review, it is determined that implementation of the proposed action will have no effect on any of these five species. The remaining species in need of consideration are the threatened grizzly bear and bald eagle, in addition to the endangered gray wolf and peregrine falcon.

### Grizzly bear

**Analysis.** The grizzly bear has a history of significance within the valley which lingers to this day. Having been reduced to perilously low numbers, the bear continues to hold on in the Cabinet and Bitterroot mountain ranges encompassing this large valley. Occasional sightings and radio telemetry locations have been recorded for both sides of the reservoirs, as is a denning area approximately five miles south of the project area (Shelley, pers. comm.).

**Mitigation/Coordination Measures.** Due to the remoteness of preferred habitats for the grizzly bear in relation to the area of proposed highway construction, no significant impacts are anticipated. Subsequently, no required mitigation/coordination measures are being recommended.

**Determination of Effects.** Based on the above, it is determined that implementation of the proposed action will not affect the grizzly bear.

### Gray wolf

**Analysis.** Recorded presence of the gray wolf in this area is even less than that of the grizzly, though infrequent sightings do occur. USFS and USFWS personnel were not aware of any wolf denning sites in the nearer locale, though its transient occurrence in the drainage is largely accepted. A species also preferring seclusion, the gray wolf is very unlikely to conflict with the proposed action.

**Mitigation/Coordination Measures.** As no gray wolves are known to reside in or frequent the project area, impacts to the species are not anticipated. Therefore, no required mitigation/ coordination measures are recommended.

**Determination of Effects.** Based on the above, it is determined that implementation of the proposed action will not affect the gray wolf.

### Peregrine falcon

**Analysis.** Though nearly extirpated, the peregrine falcon has been a traditional resident of the Intermountain West; and recovery programs begun in the 1970's are determinedly restoring the bird over much of its range. However, its presence in this portion of the valley is likely to be transitory and associated with seasonal migration.

An exception to this are some recent, though likely unsuccessful nesting attempts in the cliff areas west of Noxon Reservoir (Hidy, pers. comm.). Nearby wetlands and riparian covers do provide foraging opportunities for birds that may frequent the general area; however, there is no reason to currently suspect the habitual presence of peregrines within the project area.

**Mitigation/Coordination Measures.** As no peregrine falcons are known to habitually reside within the project area, no construction-related impacts are anticipated. However, the following measure is required to ensure that peregrine foraging areas remain as undisturbed as possible:

- No noise-related staging/construction activities are to occur adjacent to the larger wetland complexes found some 100 meters (330 feet) west of the highway's crossing of McKay Creek, and again at the interface of Swamp Creek wetland habitats and Noxon Reservoir proper.

This logistical occurrence would be unlikely in this project, but is mentioned here as a precaution.

**Determination of Effects.** Based on the above, it is determined that implementation of the proposed action is not likely to adversely affect the peregrine falcon.

### Bald Eagle

**Analysis.** Bald eagles occur in the project area as migrants, winter residents, and in two known instances- as nesting pairs. Their presence in this locale is largely associated with the river, its reservoirs, and floodplains. Though bald eagles are more commonly seen in winter months, there continues to be an active recorded nest site at Noxon Reservoir. The second location is actually a site of recurring nest attempts in the general vicinity of Milepost 13, some 3.2 k. (2 mi.) west of the project terminus.

Occupants of these nesting territories likely forage within the proposal vicinity but are not expected to be adversely affected by the scope of the project. Numerous foraging/loafing perch sites are also present in the mature trees and snags lining the reservoirs, this being particularly true downstream of Noxon dam. A single, mature bald eagle was observed in flight during the field survey of 16 October near Milepost 15.

**Determination of Effects.** Based on the above, it is determined that implementation of the proposed action is not likely to adversely affect the bald eagle.

**Mitigation/Coordination Measures.** In that the year-round presence of bald eagles within the project's vicinity is recognized, and given that construction-related noise disturbance can become a deterrent to their presence, the following measures are required to ensure that impacts are minimized:

- No staging/construction activities are to occur adjacent to the larger wetland complexes or within an approximate 1.6 kilometer radius (1 mi.) of Milepost 13. (The MDT maintenance station near Milepost 14 could be designated as the western limit of construction-related activity.) Elected staging areas should also be mindful of potential perch sites.
- Any necessary powerline relocations shall be constructed and raptor-proofed in accordance with Raptor Research Report No. 4 (Raptor Research Foundation, 1981). Raptor-proofing is a policy currently being applied by the Montana Department of Transportation.

This measure would also benefit those raptors outside of the ESA, most notably ospreys and the larger buteo hawks. Osprey are specifically mentioned as their nests are visible throughout the corridor, with some perched atop the various road and

railway bridge structures. No recommendations are being given for the construction phase beyond the common sense measure regarding the harassment of wildlife.

The Montana Department of Transportation's current practice of removing road kill becomes especially beneficial to large raptors in such times of high deer-kill, and is encouraged.

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## Referenced Species

### Common Name

### Genus and Species

#### Fauna

Bald eagle  
 Black-backed woodpecker  
 Black bear  
 Black-billed magpie  
 Black-footed ferret  
 Bobcat  
 Boreal owl  
 Common crow  
 Common raven  
 Couer d'Alene salamander  
 Coyote  
 Fisher  
 Flammulated owl  
 Gray wolf  
 Grizzly bear  
 Harlequin duck  
 Interior least tern  
 Lynx  
 Mountain lion  
 Northern bog lemming  
 Osprey  
 Peregrine falcon  
 Pine marten  
 Piping plover  
 Rocky Mountain bighorn sheep  
 Rocky Mountain goat  
 Townsend's big-eared bat  
 White-tailed deer  
 Whooping crane  
 Wolverine  
  
 Brook trout  
 Bull Trout  
 Rainbow trout  
 Westslope cutthroat

Haliaeetus leucocephalus  
Picoides arcticus  
Ursus americanus  
Pica pica  
Mustela nigripes  
Lynx rufus  
Aegolius funereus  
Corvis brachyrhynchos  
Corvis corax  
Plethodon idahoensis  
Canis latrans  
Martes pennanti  
Otus flammeolus  
Canis lupis  
Ursus arctos horribilis  
Histrionicus histrionicus  
Sterna albifrons  
Lynx canadensis  
Felis concolor  
Synaptomys borealis  
Pandion haliaetus  
Falco peregrinus  
Martes americana  
Charadrius melodus  
Ovis canadensis  
Oreamnos americanus  
Plectotus townsendii  
Odocoileus virginianus  
Grus americana  
Gulo gulo  
  
Salvelinus fontinalis  
Salvelinus confluentis  
Onchorynchus mykiss  
Salmo clarkii

Flora

Common clarkia  
Crested shield-fern  
Douglas fir  
Grand fir  
Lodgepole pine  
Ponderosa pine  
Pyramidal spiraea  
Water howellia  
Western larch  
Western hemlock  
Western red cedar  
Wool-grass  
Yerba Buena

Clarkia rhomboidea  
Dryopteris cristata  
Pseudotsuga menziesii  
Abies grandis  
Pinus contorta  
Pinus ponderosa  
Spiraea X Pyramidata  
Howellia aquatilis  
Larix occidentalis  
Tsuga heterophylla  
Thuja plicata  
Scirpus cyperinus  
Satureja douglasii

**Appendix B.1 - Wetland Finding**



## **West of Trout Creek Wetland Finding**

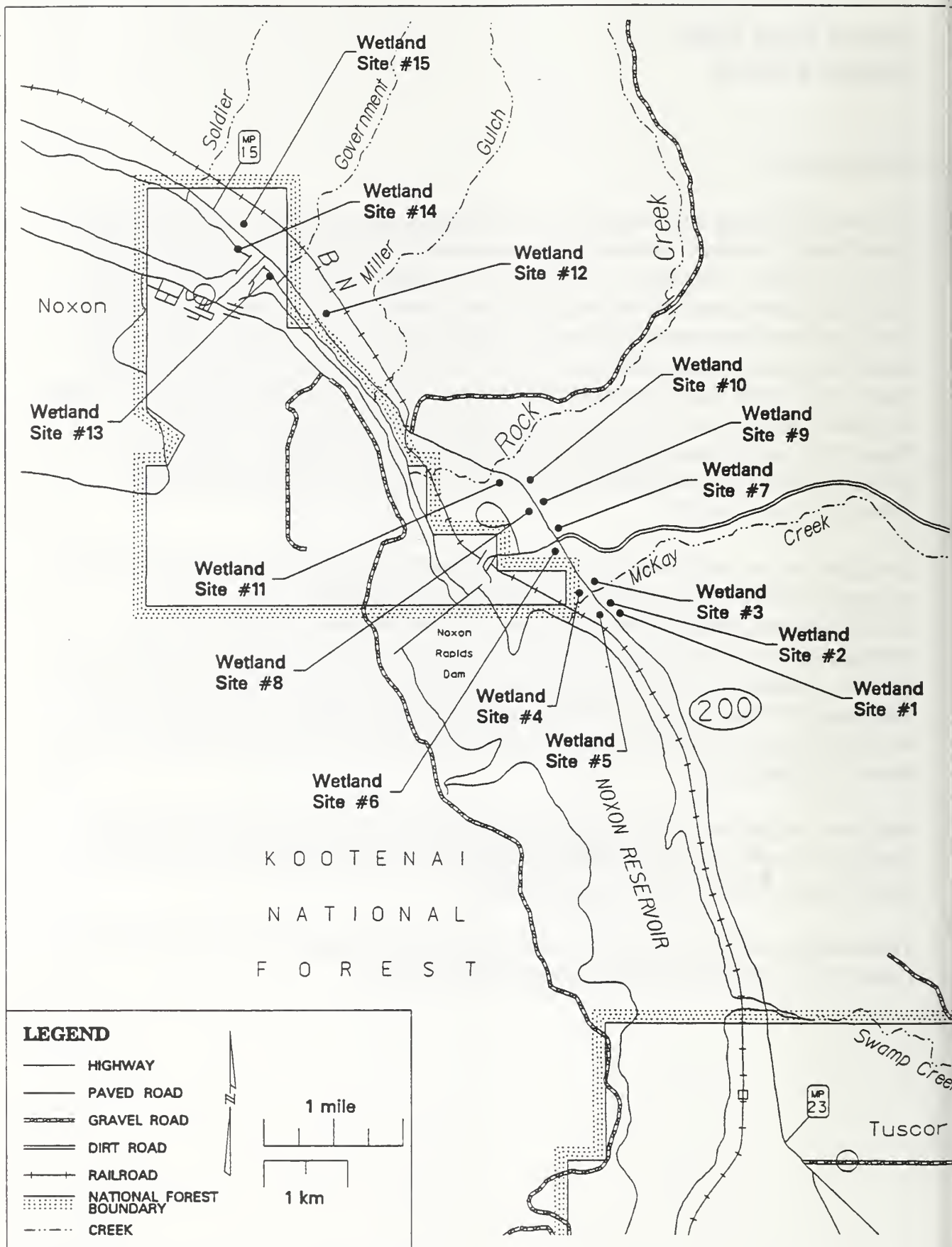
### **Introduction**

This wetland finding was prepared for the proposed improvements to MT 200 west of Trout Creek, Montana. Wetland delineations were conducted in accordance with the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual (COE 1987). The USGS 7.5 minute quadrangles including Trout Creek, Larchwood and Noxon Rapids Dam, were used for general information related to the site and its surroundings. Site specific mapping, at an approximate scale of 1:2000 (meters) including existing road centerlines, culvert locations and specific roadway elements such as proposed fill slopes and guard rail was provided by Montana Department of Transportation (MDT). Figure 3 is a vicinity map showing the general locations of wetlands. Approximate boundaries (not surveyed limits) of wetlands are outlined on the design drawings included in Appendix B.2.

The object of this field investigation was to collect soil, vegetation and hydrologic data to map the location of the wetland / non-wetland areas within any potential disturbance area, and thus provide a complete three parameter delineation. All wetlands within the existing right-of-way were delineated and mapped as well as those specific locations where improvements may or may not require additional right-of-way. Additional information and comments regarding the conditions immediately outside the right-of-way are included where necessary to provide a thorough description of the entire hydrologic system.

Additional supporting information, such as specific forest land type descriptions and the Kootenai and East Half Kaniksu National Forest Map were provided by United States Forest Service, Cabinet Ranger Station.

The following descriptions are the result of field work conducted at the West of Trout Creek project area from October 9 to October 14, 1995.



## West of Trout Creek

WETLAND LOCATION  
Figure 3

## Site Description

### Location

The project area is contained within a linear corridor approximately 80 meters (260 feet) wide by 13.1 kilometers (8.2 miles). The project area is located in extreme western Montana along Montana State Highway 200 (MT 200) between the towns of Trout Creek and Noxon Montana.

### Geomorphology

MT 200 follows a path through the Clark Fork River Basin occupying a relative mid-location in the landscape and traveling roughly parallel to the river course. This area is characterized by remnants of terraces formed by the fluctuating levels of glacial Lake Missoula. Terrace escarpments range from steep to very steep. Two hydroelectric dams were built in the 1950s to provide regional hydroelectric power. The Noxon and Cabinet Gorge reservoirs have placed the existing road in a relatively lower landscape position sometimes being elevated only 4.6 or 6.2 meters (15 or 20 feet) above the ordinary high water mark of the reservoirs. The road traverses along the undulating landscape moving in and out along the terraces at varying distances from the reservoirs' edge. As it follows the Clark Fork River, it crosses several small deeply incised tributary drainage basins, one of which is now inundated and can be considered an inlet of Noxon Reservoir.

These tributary drainages for the most part contain vegetated ephemeral stream courses that fill with surface water during spring runoff or during times of high precipitation but are dry for a large percentage of the year. Annual precipitation ranges between 72 and 85 centimeters (28 and 34 inches) for most of the project area.

### Vegetation

Vegetation within the project area consists mostly of typical mixed coniferous forest on mountain slopes interspersed by occasional meadows, usually created by agricultural activities. Other open areas include small building sites and clearings for access roads. The project area itself was cleared to the approximate limits of the right-of-way and has been largely maintained in such condition during its history. Canopy species included in these forested hillsides are Tamarack (*Larix occidentalis*), Lodgepole Pine (*Pinus contorta*), Ponderosa Pine (*Pinus ponderosa*), Western Red Cedar (*Thuja plicata*), and Sub Alpine Fir (*Abies lasiocarpa*), with an understory of Kinnickinnick (*Arctostaphylos uva-ursi*) and Oregon Grape Holly (*Berberis repens*). The right-of-way

is crowded with coniferous saplings of all these species varying in height from 0.3 to 15 meters (1 to 15 feet).

Smaller inclusions of deciduous trees, usually representing higher moisture areas, are found interspersed along the project area. These stands include such species as Black Cottonwood (*Populus trichocarpa*), Quaking Aspen (*Populus tremuloides*), Willows (*Salix sp.*) and Thin-Leaved Alder (*Alnus incana*). Shrubby mid-stories in these areas include such species as Red Osier Dogwood and both species of Hawthorn (*Crataegus douglasii* and *Crataegus columbiana*).

More specifically, the upland roadside vegetation is generally a disturbed mix of species most likely introduced during revegetation activities. Some of these species are vigorous growers and are usually found taking over disturbed sites. A representative sample of the species found along the roadside would include Spotted Knapweed (*Centaurea maculosa*), several species of Clover (*Trifolium sp.*), both Yellow and White Sweet Clover (*Melilotus alba* and *Melilotus officinalis*), Timothy (*Phleum pratense*), Wheatgrasses (*Agropyron sp.*), Alfalfa (*Medicago sativa*) and Bull Thistle (*Cirsium vulgare*). Bracken Fern (*Pteridium aquilium*) and Common Snowberry (*Symphoricarpos albus*) form thickets that have taken over large expanses all along the drier portions of the disturbed right-of-way and were used as indicators of uplands.

Wetland vegetation consists of several different distributions of species relating to the type of wetland. Occurring within the project area are broad flat flood plain wetlands (portions of McKay Creek) which are vegetated exclusively with herbaceous species such as Bulrush (*Scirpus sp.*), Sedges (*Carex sp.*), Rushes (*Juncus sp.*) and Cattails (*Typha latifolia*). Some of the wetlands are narrow riparian edge areas consisting mostly of deciduous tree and shrubby layers of Black Cottonwood (*Populus trichocarpa*), Quaking Aspen (*Populus tremuloides*), Thin-Leaved Alder (*Alnus incana*) and Red Osier Dogwood (*Cornus stolonifera*).

There are several wetlands (mostly located close to the reservoir edge) that are vegetated by combinations of both herbaceous and shrubby wetland species such as Willows (*Salix sp.*), Red Osier Dogwood (*Cornus stolonifera*), Reed Canary Grass (*Phalaris arundinacea*), and Red Top (*Agrostis alba*).

Finally, some of the delineated wetlands include "borrow ditch" wetlands which are vegetated by a mostly herbaceous disturbed complex of wetland (or at least facultative) plants such as Cattail (*Typha latifolia*), Bulrush (*Scirpus sp.*), several species of Scouring Rush (*Equisetum sp.*) and Elk Moss (*Lycopodium clavatum*).

A plant list of all the species identified within the project area is provided within this report. This list is not meant to be comprehensive or exhaustive. Specific vegetation

identified at each of the sample sites is provided in the Routine Wetland Determination Data Forms located in Appendix B.3.

## Soils

Information relating to soils was provided by the USDA Natural Resource Conservation Service, Plains, Montana field office. The soils located within the study area are generally silt loam topsoils formed from volcanic-ash derived parent material over a silty clay subsoil formed by lacustrine deposits associated with glacial Lake Missoula.

Sample pits were taken within the mapped boundaries of the following six map units:

| Map Symbol | Map Unit Name                                 | Drainage Class      |
|------------|-----------------------------------------------|---------------------|
| 65AX       | Larchpoint Silt Loam 0 to 2 % slopes          | Poorly Drained      |
| 78BX       | Fernline Silt Loam 0 to 4 % slopes            | Well Drained        |
| 88EX       | Dewberry Gravelly Silt Loam 8 to 45 % slopes  | Excessively Drained |
| 88CX       | Dewberry Silt Loam 2 to 8 % slopes            | Excessively Drained |
| 791EX      | Redlock-Fernline Silt Loams 15 to 35 % slopes | Well Drained        |
| 811DX      | Noxlin-Fernline Silt Loams 4 to 15 % slopes   | Well Drained        |

Additionally, some sample pits were dug fairly close, within 1.5 to 3.1 meters (5 to 10 feet) along the highway, in what is most likely imported road bed fill. Particularly on some of the steeper road grade side slopes, the soils were stony and/or gravelly beyond the mapped descriptions and in some cases impenetrable. Due to the local topography of the highway grade and the excessive amount of gravel or cobbles these sites were not confirmed as the mapped soil unit. Within the "borrow ditch" wetlands, usually located at the point where the fill for the road met the original slope, the road fill soils and the mapped soils graded together and was difficult to confirm the mapped unit. In most of the other sample sites the described map unit was confirmed with some variations in texture or color.

## Hydrology

Wetlands jurisdictional areas were grouped into six distinct categories based on the interpreted origin of their hydrology. These six categories are as follows:

| Hydrologic Source                   | Sample Sites Included | Wetland Type                   |
|-------------------------------------|-----------------------|--------------------------------|
| Noxon Reservoir Inlet (Swamp Creek) | N/A                   | Open Water                     |
| McKay Creek                         | #3, #4, #5            | Freshwater Emergent / Riparian |
| Unnamed Drainages                   | #7, #8, #9            | Freshwater Emergent            |
| Rock Creek                          | #10, #11              | Riparian                       |
| Cabinet Gorge Reservoir/Slough      | #13, #14, #15         | Freshwater Emergent            |
| Borrow Ditch (impeded drainage)     | #1, #2, #6, #12       | Freshwater Emergent            |

### **Noxon Reservoir Inlet (Swamp Creek) (MP 22.1)**

Approximately at Milepost 22.1 is a steeply incised drainage tributary inlet of Noxon Reservoir that was created during the filling of the reservoir. This area has very steep slopes on all sides including the road fill. These steep slopes meet the waters edge at very sharp grade leaving virtually no area for wetland development. The jurisdictional area is only the open water below ordinary high water mark.

### **McKay Creek (MP 13.9)**

The McKay Creek area contains the most well developed wetlands within the project area. These are high quality, although not undisturbed, wetlands. On the east side of MT 200, McKay Creek is narrowly channelized and the wetlands are riparian close to the bed of the stream except next to the culvert where it widens slightly against the road grade. On the west side of MT 200, the flow is still channelized but less so and contributes to permanent surface saturation across a broad floodplain. This broad floodplain integrates with the edge of Noxon Reservoir. The vegetation is well zoned and in the lower areas of the floodplain creates pockets of tall herbaceous and shrub habitat. Very gradual grades with some hummocky micro-relief, characterize the topography which makes the wetland/upland division less distinct. Parts of the area have been disturbed by regrading of the railroad and existing highway. These areas have been filled to be sufficiently above the water table and are not included as wetlands.

### **Unnamed Drainages**

Several unnamed drainages cross MT 200 at different locations. These drainages have been culverted and are still open and flowing. These areas appear to be permanently or semi-permanently inundated, however. No open or deep water areas were observed. These drainages are for the most part choked with obligate species such as

Sedges (*Carex sp.*) and Cattail (*Typha latifolia*). These drainages, crossing more or less perpendicular to the highway, are fairly deeply incised with moderately steep side slopes creating distinct wetland boundaries.

### **Rock Creek (MP 17.7)**

The wetlands associated with Rock Creek are very steeply graded on both the east and west side of MT 200. On the east side the wetlands are restricted to specific low areas (micro channels) that concentrate surface and ground water flows enough to produce the duration of saturation needed for wetland development. These are sporadic. The Rock Creek channel itself is narrow and has a distinct bed and bank system, creating narrow edge wetlands less than two feet above the ordinary high water mark. On the west side of the road, narrow and deep channels with flat or U-shaped bottoms have been created by the road fill and existing topography. These channels are vegetated with large deciduous Facultative or wetter plants such as Alder (*Alnus sp.*) and Cottonwoods (*Populus sp.*) The boundaries of these wetlands are defined by the sharp change in grade at the edge of the U-shaped channel bottom.

### **Cabinet Gorge Reservoir/Slough**

Wetlands at the north end of the project area (MP 15 to MP 16) are associated with the edge of Cabinet Gorge Reservoir and/or the connected slough on the east side of the highway. These are more well-developed wetlands with higher quality habitat, particularly the slough just opposite (north of) of the Noxon bridge. The hydrology of the wetlands adjacent to the Noxon Reservoir are influenced directly by the water level of the reservoir. There is a very distinct terrace along the edge of the reservoir between the road elevation and the waters edge. This terraces varies between 0.3 to 3.1 meters (1 to 10 feet) above the ordinary high water mark. Where the elevation of the terrace is close enough, +/- 46 centimeters (+/- 18 inches), to the water table, wetlands have developed. These wetlands are typically Willows (*Salix sp.*), Alder (*Alnus sp.*) and herbaceous obligates. Certain areas along the reservoir edge have been rip rapped with large angular stones that grade steeply down into the water inhibiting wetland growth. On the east side of MT 200 is a slough with wetlands that are again separated from the road grade by a smaller but still distinct terrace. This terrace edge runs somewhat obliquely to the road and at a specific location runs into the actual road fill slope. At this point the wetland boundary along the east side of MT 200 becomes the edge of the existing road fill.

## **Borrow Ditch**

Several man-induced wetlands have been created adjacent to MT 200, located in the "borrow ditches" or that area where the road fill meets the existing grade. These are narrow, 1.5 to 4.6 meters (5 to 15 feet) wide, linear wetlands created as the result of clogged drainage improvements or grading that was introduced as part of the existing highway improvements. These are generally very small low grade wetlands being supported by pooled roadway and sidehill runoff that is unable to follow its intended course.

## **Proposed Action**

Several specific design features are being proposed to enhance the safety and extend the pavement life of MT 200. These include slope flattening, hydraulics improvements and guardrail improvements. Slope flattening and grade adjustments have the potential to impact wetlands adjacent to the roadway. Disturbance areas are outlined on the design drawings contained in Appendix B.2. Refer to these drawings for the specific locations of slope flattening, guardrail improvements or curve adjustments that are proposed.

## **Wetland Avoidance**

A deliberate effort was made on the part of MDT to avoid wetland impacts on the West of Trout Creek project. Based on our wetland findings, the original design of the project impacted 0.46 hectares (1.13 acres) of wetland. Following several discussions and meetings regarding wetland impacts, MDT provided a revised design which reduced impacted wetlands to 0.15 hectares (0.38 acres). This was primarily achieved by guardrailing critical areas of high-quality wetlands.

## **Conclusion**

The entire 13.1 meter (8.2 mile) length of the corridor was walked by the investigator looking for hydrologic and/or vegetational wetland cues. In the interest of thoroughness both ends of each mapped culvert were deliberately checked for wetland characteristics. At the locations where hydrologic and vegetation criteria were met, soil samples were taken and examined. Routine Wetland Determination Data Forms were filled out for each of these locations. Once a wetland determination was made the boundaries were measured and mapped in relationship to the existing mapped roadway centerline. These measured sketches were then recopied and areas of impact

were calculated. As a result, 0.15 hectare (0.38 acres) of wetlands were determined to be impacted under the proposed improvements.

MDT Wetland Site Evaluation forms were filled out for each of the six distinct types of wetlands identified in the hydrology section.

## **Mitigation Sites**

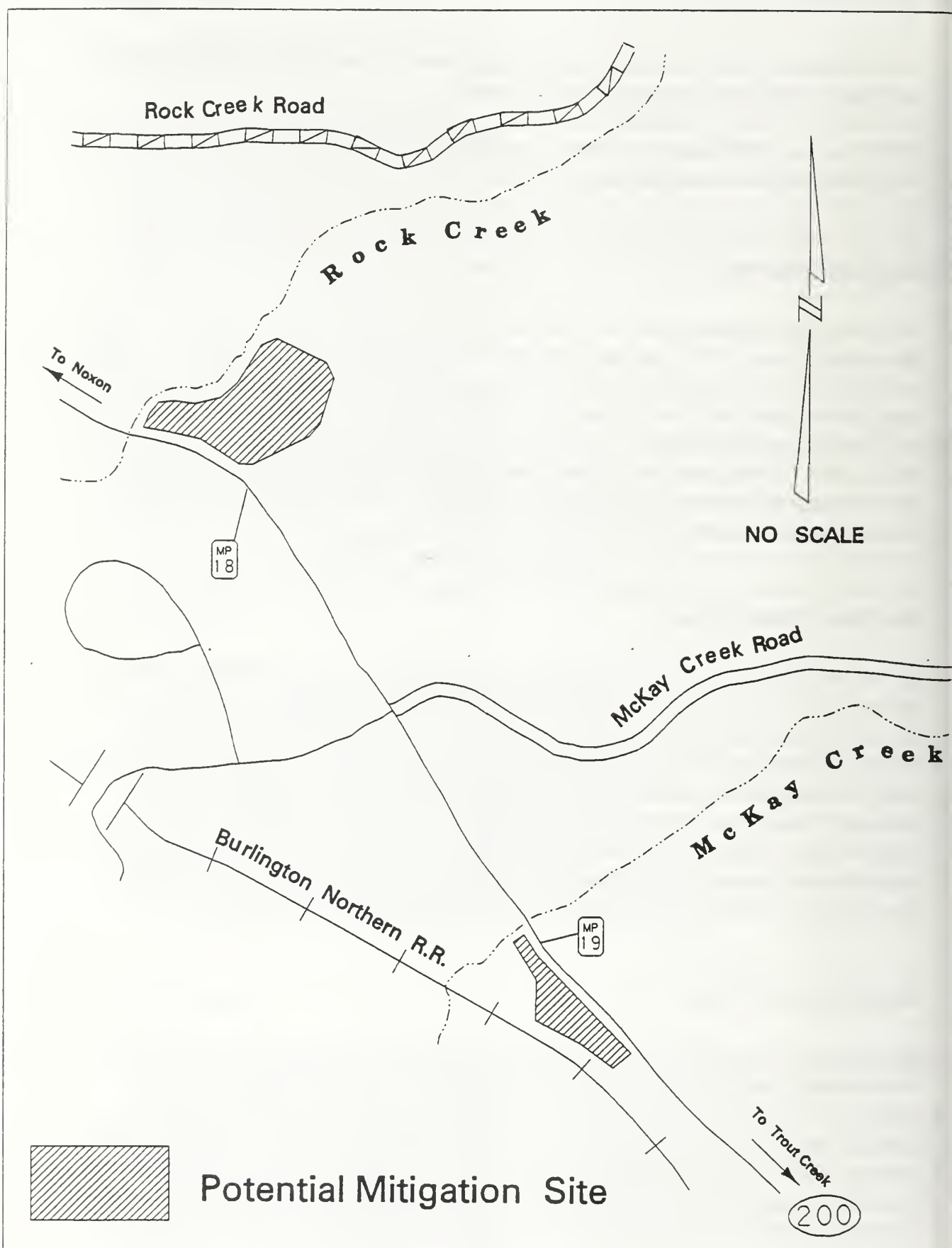
Two potential mitigation sites were identified as part of this field investigation. These sites include many of the necessary characteristics needed to create wetlands. Further investigation and documentation such as monitoring wells, soil percolation tests and topographic survey may be required prior to any mitigation design. The Forest Service will be consulted regarding the development of a mitigation design for any mitigation sites located on National Forest system lands. The following are short descriptions of the two areas and the reasons for their consideration. The general location of these sites is shown on Figure 4.

### **West Side McKay Creek**

On the west side of MT 200, between the existing highway and the existing railroad grade, on the south side of the McKay Creek channel, is an area of very flat to hummocky land which is not forested. This area is probably connected by ground water to the intact McKay Creek wetlands. It has been disturbed and regraded several times. The gradual slopes that are located close to both surface and ground water hydrology make this a potential source of wetland mitigation. Relatively minor regrading and repair of the gradual slopes along with the introduction of some small channels could create new wetlands and drastically improve existing wetland edges. Potential size of this mitigation site is 0.81 to 2.0 hectares (2 to 5 acres).

### **East Side Rock Creek**

On the east side of MT 200 just south of the existing Rock Creek channel is an open meadow area vegetated by weedy invading species such as Bull Thistle (*Cirsium vulgare*). The surface of this meadow flood plain area is approximately 46 to 92 centimeters (18 to 36 inches) above the ordinary high water mark on the Rock Creek channel. The existing flat grades and proximity to a hydrological source makes this a potential mitigation site. Minor grading and channelization may produce sufficient hydrology within the meadow to create wetlands. Potential size of this mitigation site is 0.81 to 1.2 hectares (2 to 3 acres).



**West of Trout Creek**

**POTENTIAL WETLAND MITIGATION SITES**

**Figure 4**

## Plant List

| Scientific Name                         | Common Name              | Region 9 Indicator Status |
|-----------------------------------------|--------------------------|---------------------------|
| <i>Scirpus microcarpus</i>              | Small-Fruited Bulrush    | OBL                       |
| <i>Melilotus alba</i>                   | White Sweetclover        | FACU                      |
| <i>Melilotus officinalis</i>            | Yellow Sweetclover       | FACU                      |
| <i>Thuja plicata</i>                    | Western Red Cedar        | FAC                       |
| <i>Malus sp.</i>                        | Apple                    | NI                        |
| <i>Larix occidentalis</i>               | Western Larch, Tamarack  | FACU+                     |
| <i>Pinus contorta</i>                   | Lodgepole Pine           | FAC-                      |
| <i>Pinus ponderosa</i>                  | Ponderosa Pine           | FACU-                     |
| <i>Picea engelmannii</i>                | Engelman Spruce          | FAC                       |
| <i>Abies lasiocarpa</i>                 | Sub Alpine Fir           | FACU                      |
| <i>Equisetum hyemale</i>                | Common Scouring Rush     | FACW                      |
| <i>Equisetum scirpoides</i>             | Sedgelike Rush           | FAC                       |
| <i>Equisetum arvense</i>                | Common Horsetail         | FAC                       |
| <i>Centaurea maculosa</i>               | Spotted Knapweed         | UPL                       |
| <i>Pteridium aquilium</i>               | Bracken Fern             | FACU                      |
| <i>Linaria dabnatica</i>                | Dalmation Toadflax       | NI                        |
| <i>Arctostaphylos uva-ursi</i>          | Bearberry, Kinnickinnick | FACU-                     |
| <i>Symphoricarpos albus</i>             | Common Snowberry         | FACU                      |
| <i>Achillea lanulosa v. millefolium</i> | Yarrow                   | FACU                      |
| <i>Acer glabrum</i>                     | Rocky Mountain Maple     | FAC                       |
| <i>Trifolium pratense</i>               | Red Clover               | FACU                      |
| <i>Mentha arvensis</i>                  | Field Mint               | FAC                       |
| <i>Solidago occidentalis</i>            | Western Goldenrod        | FACW                      |
| <i>Phalaris arundinacea</i>             | Reed Canary Grass        | FACW                      |
| <i>Crataegus douglasii</i>              | River Hawthorn           | FAC                       |
| <i>Crataegus columbiana</i>             | Columbia Hawthorn        | NI                        |
| <i>Phleum pratense</i>                  | Timothy                  | FACU                      |
| <i>Bromus inermis</i>                   | Smooth Brome             | UPL                       |
| <i>Verbascum thapsus</i>                | Common Mullein           | UPL                       |
| <i>Rosa woodsii</i>                     | Wood's Rose              | FACU                      |
| <i>Populus trichocarpa</i>              | Black Cottonwood         | FAC                       |
| <i>Cornus stolonifera</i>               | Red Twig Dogwood         | FACW                      |
| <i>Berberis repens</i>                  | Oregon Grape Holly       | NI                        |
| <i>Agropyron smithii</i>                | Western Wheatgrass       | FACU                      |
| <i>Agropyron dasystachyum</i>           | Thick-spike Wheatgrass   | FACU-                     |
| <i>Populus tremuloides</i>              | Quaking Aspen            | FAC+                      |
| <i>Medicago sativa</i>                  | Alfalfa                  | NI                        |
| <i>Scirpus validus</i>                  | Softstem Bulrush         | OBL                       |
| <i>Typha latifolia</i>                  | Cat Tail                 | OBL                       |
| <i>Alnus incana</i>                     | Thin-leaved Alder        | FACW                      |
| <i>Cirsium vulgare</i>                  | Bull Thistle             | FACU                      |
| <i>Lycopodium clavatum</i>              | Elk Moss                 | FAC                       |
| <i>Arabis sp.</i>                       | Rockcress                | FACU                      |
| <i>Salix amygdaloides</i>               | Peach Leaved Willow      | FACW                      |
| <i>Salix exigua</i>                     | Sandbar Willow           | OBL                       |
| <i>Scirpus pallidus</i>                 | Pale Bulrush             | OBL                       |
| <i>Carex rostrata</i>                   | Beaked Sedge             | OBL                       |
| <i>Agrostis alba</i>                    | Red Top                  | FACW                      |
| <i>Salix sitchensis</i>                 | Sitka Willow             | FACW                      |
| <i>Juncus bufonius</i>                  | Toad Rush                | FACW+                     |
| <i>Rumex crispus</i>                    | Curly Dock               | FACW                      |
| <i>Carex microptera</i>                 | Small-Winged Sedge       | FAC                       |
| <i>Heracleum lanatum</i>                | Cow Parsnip              | FAC                       |
| <i>Rubus sp.</i>                        | Raspberry                | FAC                       |
| <i>Trifolium repens</i>                 | White Clover             | FACU+                     |
| <i>Festuca occidentalis</i>             | Western Fescue           | FACU                      |
| <i>Salix lasiandra</i>                  | Pacific Willow           | FACW+                     |

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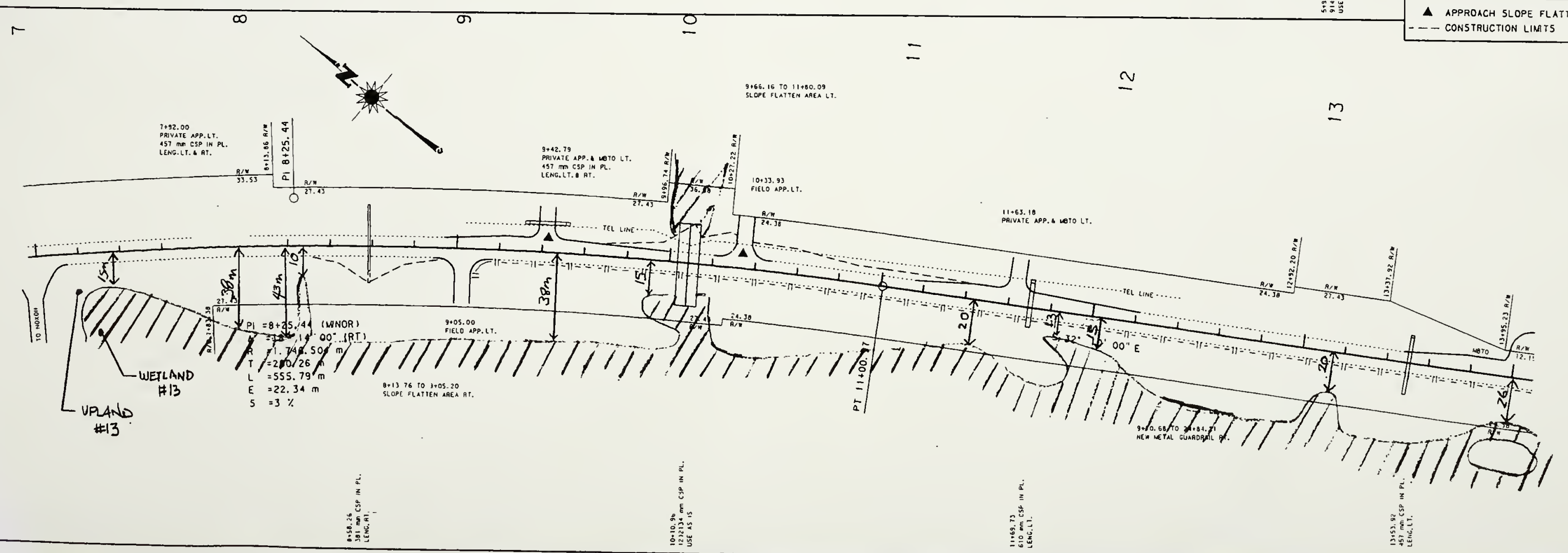
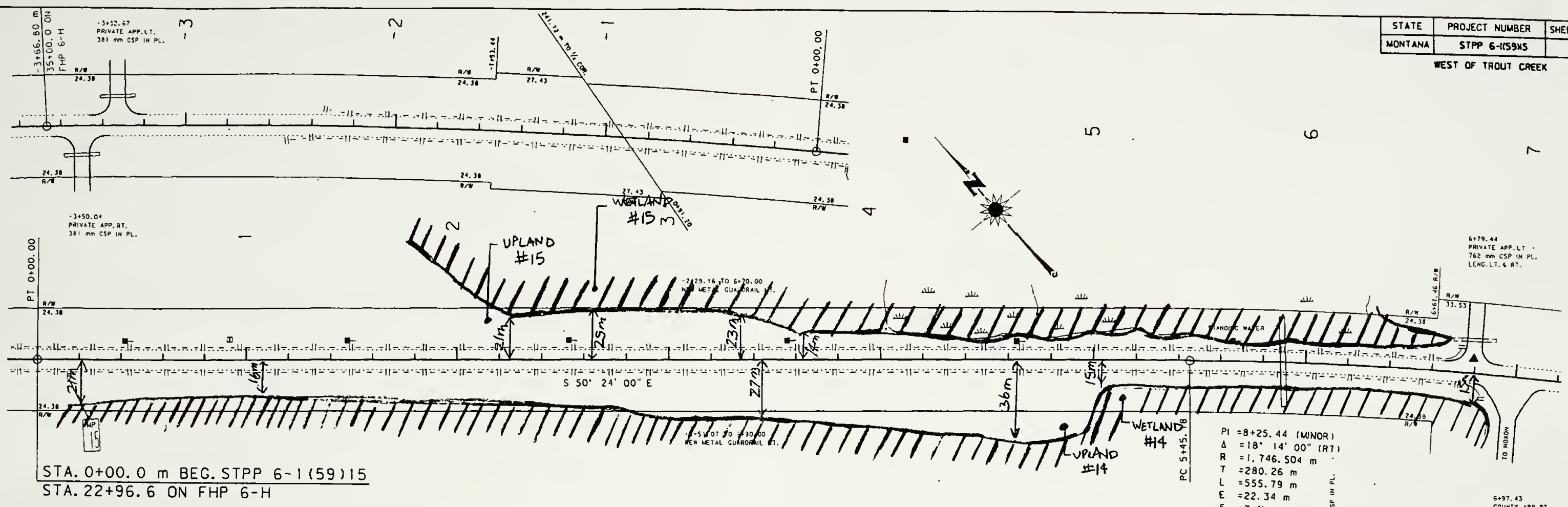
U.S. Army Corps of Engineers. 1987. COE Wetlands Delineation Manual. Wetland Research Program Technical Report Y-87-1. Department of the Army. Waterways Experiment Station, Corps of Engineers. Vicksburg, Mississippi.

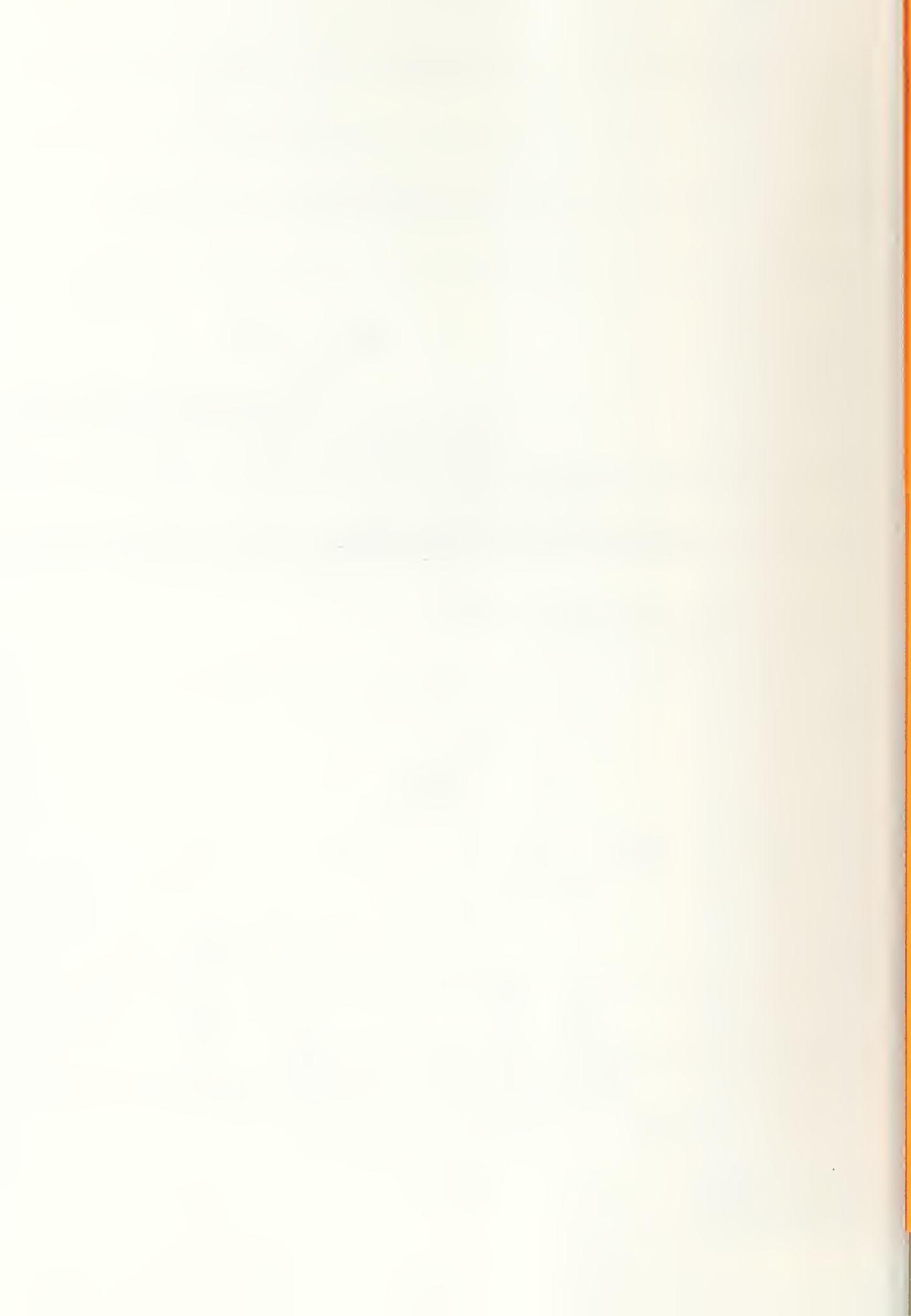
**Appendix B.2 - Approximate Wetland Boundaries on Preliminary Design Plans**

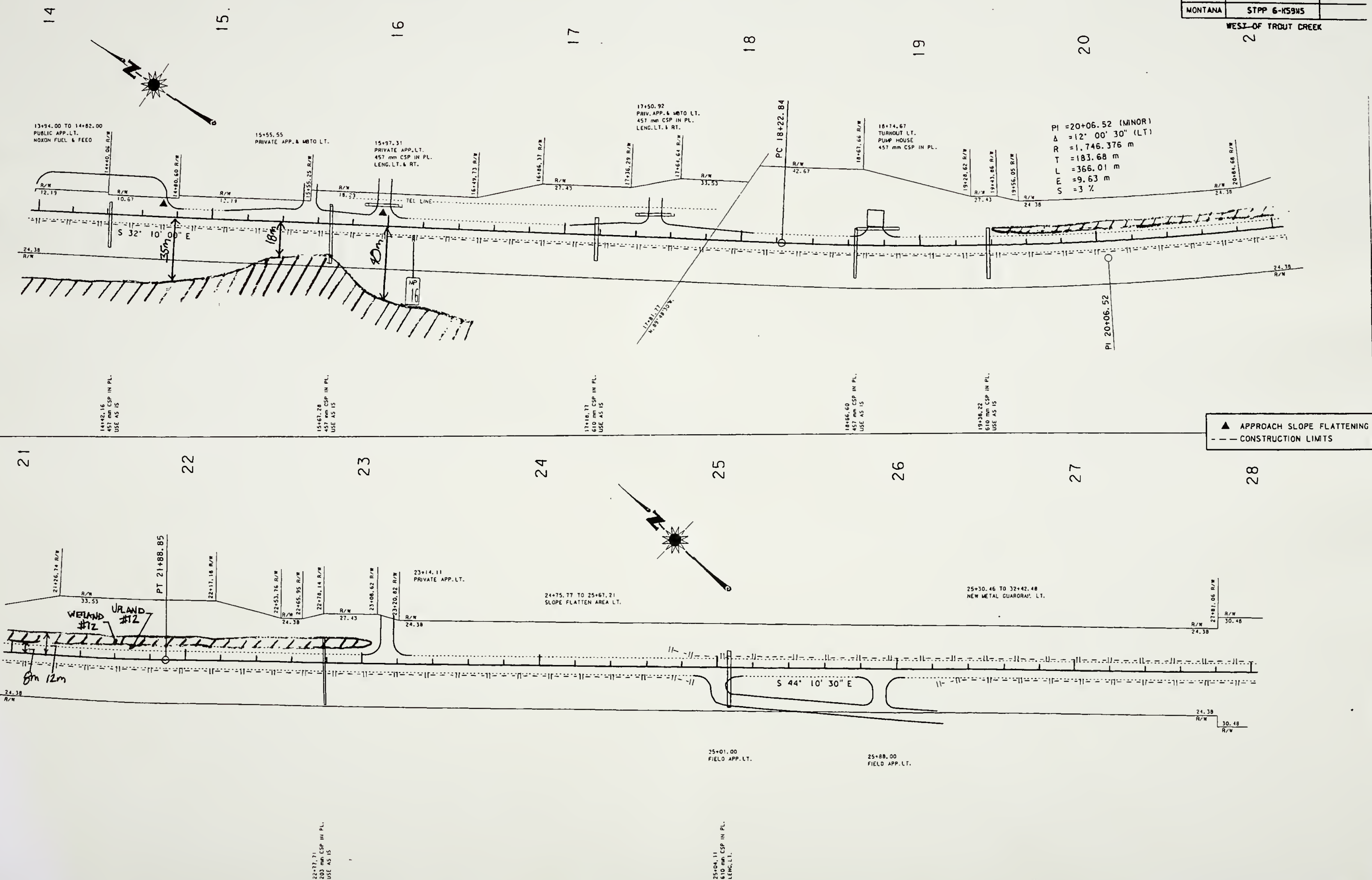


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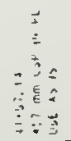
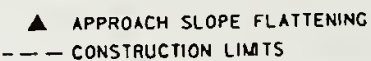
WEST OF TROUT CREEK



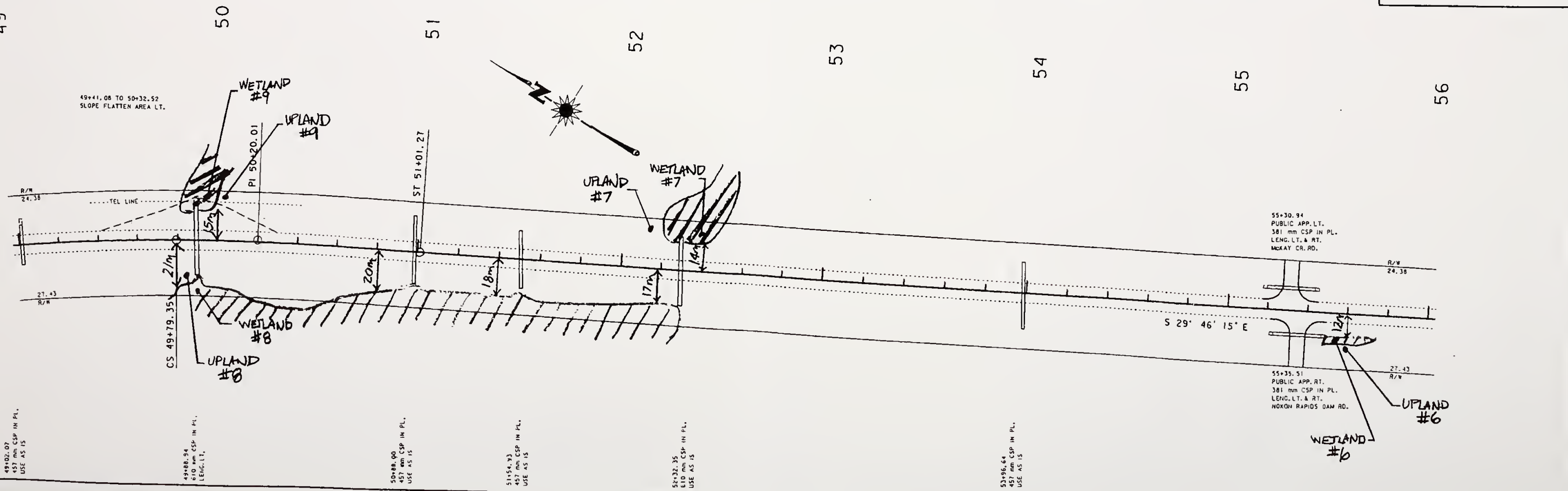
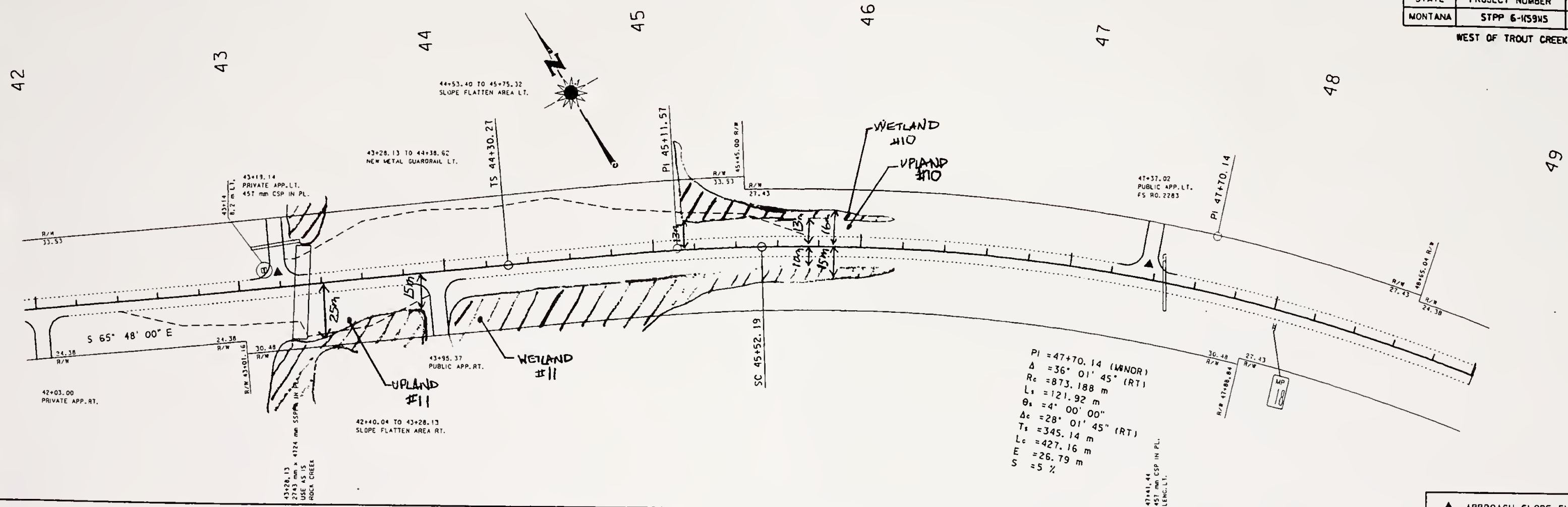








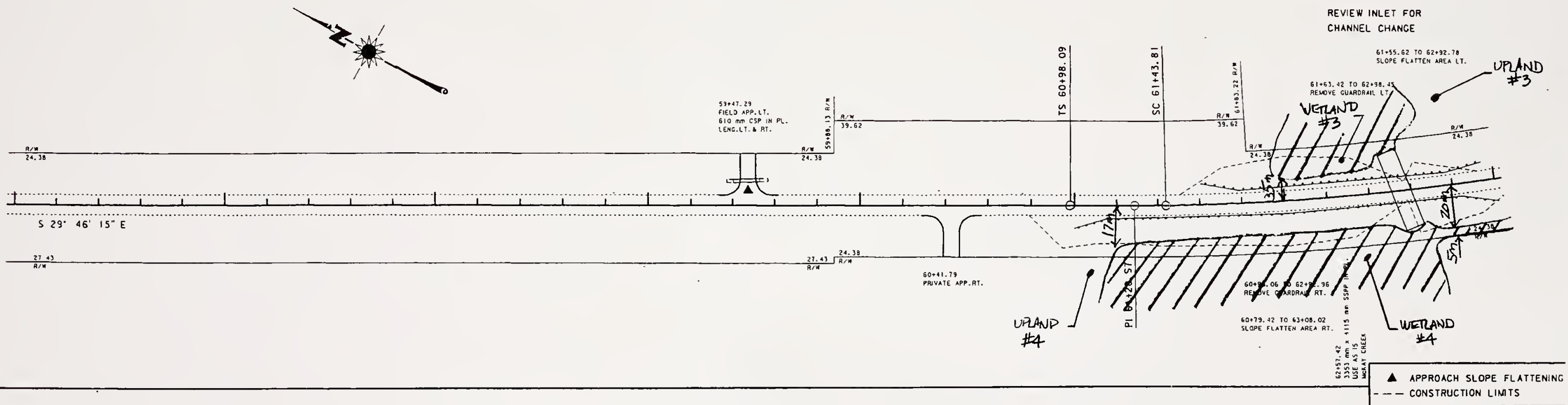




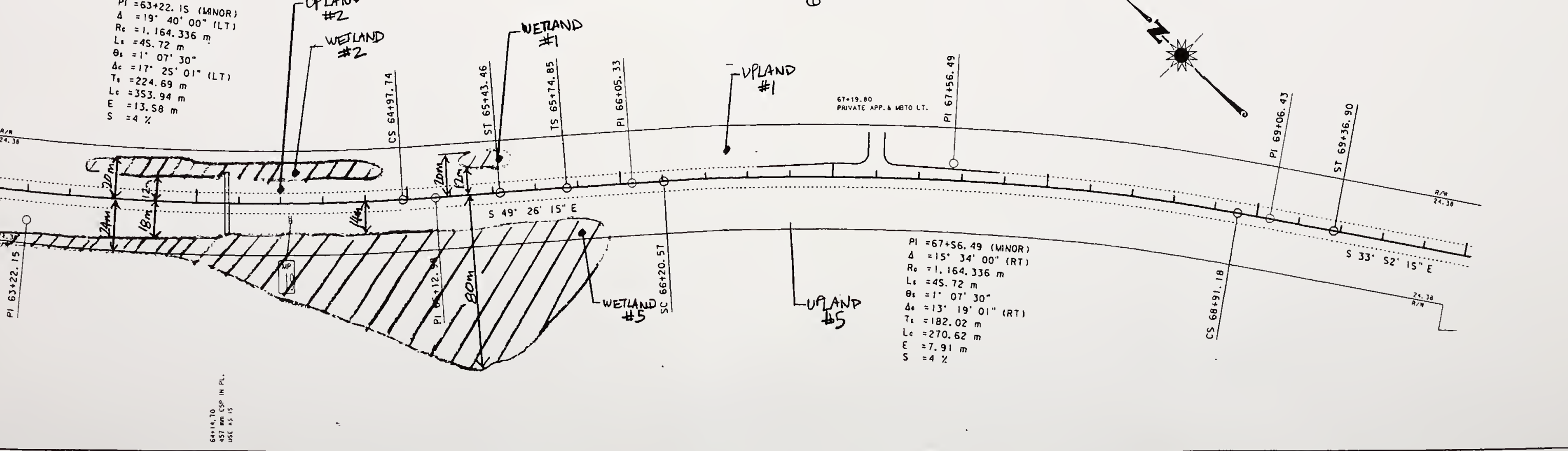
▲ APPROACH SLOPE FLATTENING  
 --- CONSTRUCTION LIMITS



56 57 58 59 60 61 62 63



63 64 65 66 67 68 69

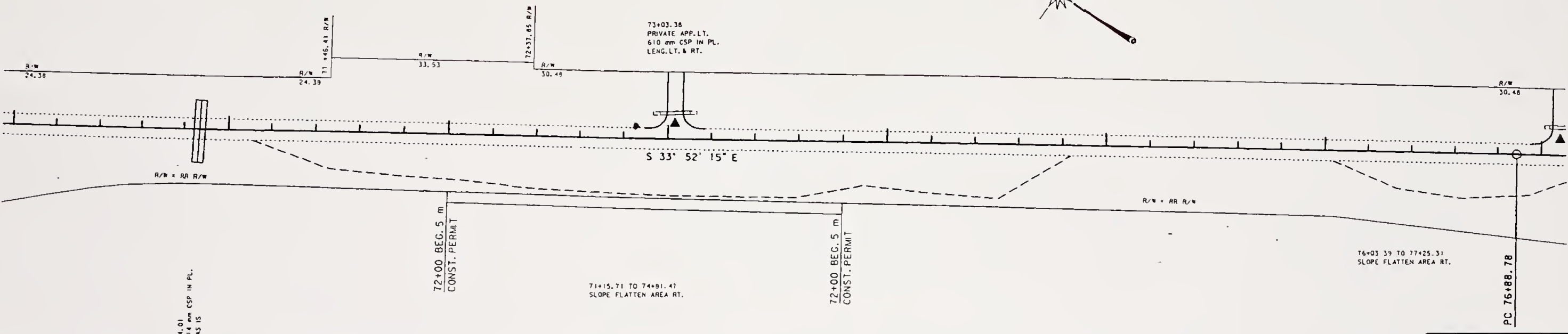




| STATE   | PROJECT NUMBER | SHEET NO. |
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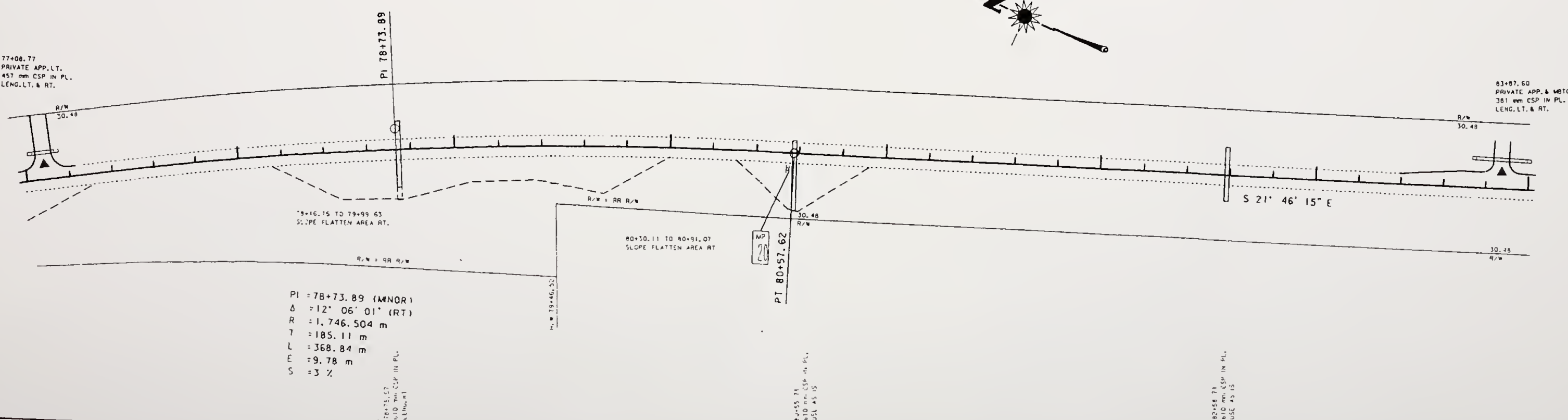
WEST OF TROUT CREEK

70 71 72 73 74 75 76 77



▲ APPROACH SLOPE FLATTENING  
--- CONSTRUCTION LIMITS

77 78 79 80 81 82 83 84



PI = 78+73.89 (MNOR)  
Δ = 12° 06' 01" (RT)  
R = 1,746.504 m  
T = 185.11 m  
L = 368.84 m  
E = 9.78 m  
S = 3 %

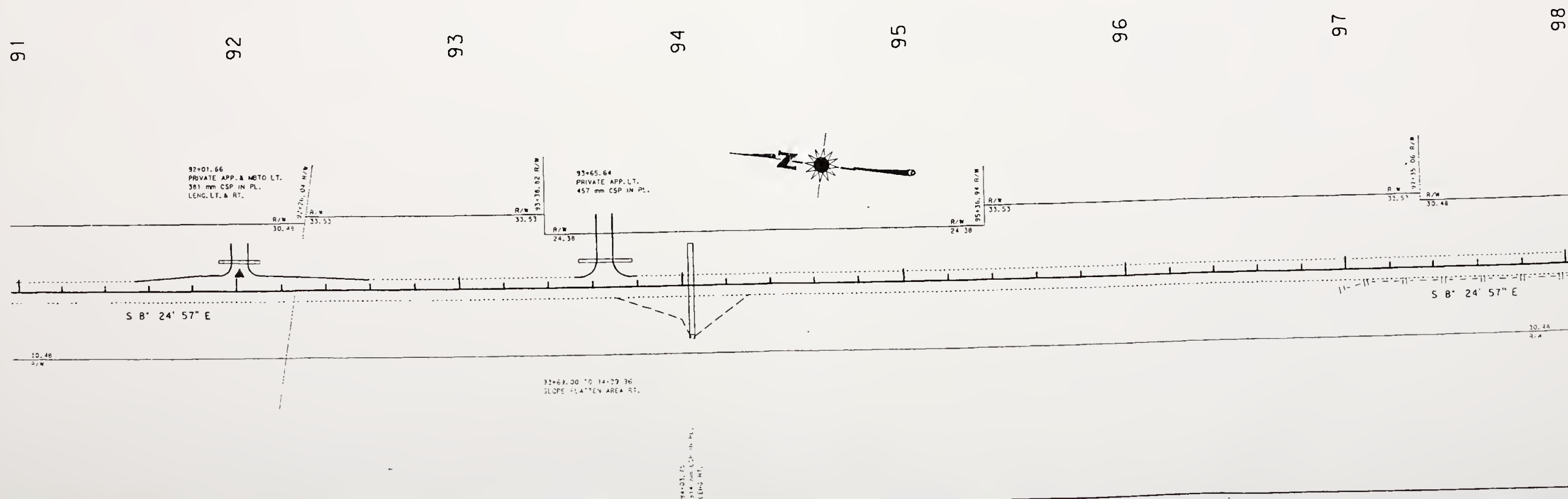
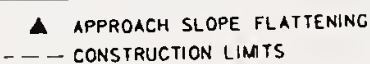
MONTANA DEPARTMENT OF TRANSPORTATION

MONTANA CADD

2  
1



WEST OF TROUT CREEK





| STATE   | PROJECT NUMBER | SHEET NO. |
|---------|----------------|-----------|
| MONTANA | STPP 6-K5945   |           |

WEST OF TROUT CREEK

98

99

100

101

102

103

104

PI = 101+76.66 (MNDR)  
 $\Delta = 14^\circ 52' 00''$  (LT)  
 $R = 1,746.504$  m  
 $T = 227.86$  m  
 $L = 453.17$  m  
 $E = 14.80$  m  
 $S = 3 \%$

102+31.89  
PRIVATE APP. & MBTO LT.

PT 104+01.96

R/W 30.48

S 23° 16' 57" E

103+25.00 TO 104+10.00  
SCENC TURNOUT RT.

99+31.66  
610 mm CSP IN PL.  
USE AS IS

PI 101+76.66

103+13.88  
914 mm CSP IN PL.  
USE AS IS

▲ APPROACH SLOPE FLATTENING  
 --- CONSTRUCTION LIMITS

105

106

107

108

109

110

111

112

107+10.12 TO 109+38.72  
SLOPE FLATTEN AREA LT.

109+98.00  
PRIVATE APP. LT.  
381 mm CSP IN PL.  
LENG. LT. & RT.

PI 110+34.81

110+45.72 R/W  
24.38

108+11.03  
PRIVATE APP. & MBTO LT.

PI 108+03.60

106+76.92  
PRIVATE APP. & MBTO LT.  
381 mm CSP IN PL.  
LENG. LT. & RT.

106+78.97 R/W

R/W 30.48

24.38

S 23° 16' 57" E

105+48.20 TO 110+14.32  
SLOPE FLATTEN AREA RT.

107+60 BEG. 5 m  
(CONST. PERMIT)

108+10 END 5 m  
CONST. PERMIT

SC 108+18.84

PI = 110+34.81 (MNDR)  
 $\Delta = 23^\circ 16' 00''$  (RT)  
 $R_c = 1,164.336$  m  
 $L_c = 45.72$  m  
 $\theta_c = 1^\circ 07' 30''$   
 $\Delta_c = 21^\circ 01' 01''$  (RT)  
 $T_c = 262.58$  m  
 $L_c = 427.09$  m  
 $E = 19.86$  m  
 $S = 4 \%$

111+22.00  
FIELD APP. RT.

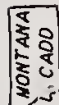
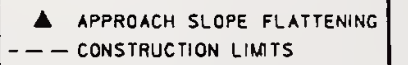
109+38.72  
914 mm CSP IN PL.  
USE AS IS

MONTANA DEPARTMENT  
OF TRANSPORTATION

MONTANA  
CADD

3







**Appendix B.3 - COE Routine Wetland Delineation Forms and  
MDT Wetland Site Evaluation Forms**



DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                      |                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROOT CR. UPLAND SAMPLE #1</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND / KEENE</u>                                                               | Date: <u>10/12/15</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Do Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #1</u>  |

VEGETATION

| Dominant Plant Species     | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>PERIDIMUM AQUILUM</u>   | <u>H</u>  | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>SALIX AMYGDALOIDES</u>  | <u>SH</u> | <u>FACW</u> | 10. _____              | _____   | _____     |
| <u>POPULUS TREMULOIDES</u> | <u>T</u>  | <u>FAC+</u> | 11. _____              | _____   | _____     |
| <u>SALIX SP.</u>           | <u>SH</u> | <u>FACW</u> | 12. _____              | _____   | _____     |
| _____                      | _____     | _____       | 13. _____              | _____   | _____     |
| _____                      | _____     | _____       | 14. _____              | _____   | _____     |
| _____                      | _____     | _____       | 15. _____              | _____   | _____     |
| _____                      | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: VERY CLOSE TO WETLAND BEING > 50% PERIDIMUM IS DOMINANT THOUGH.

HYDROLOGY

|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>n/a</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 13</u> (in.)<br>Depth to Saturated Soil: <u>&gt; 18</u> (in.)                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

Remarks: BOTTOM OF PIT WETTER THAN SIDE SLOPE, BUT NOT REALLY SATURATED NO INDICATORS PRESENT

## SOILS

Map Unit Name: (B1DX)  
(Series and Phase): NOXLIN-FERNUNE SILT LOAM 4-15% Drainage Class: WELL DRAINED  
MIXED ANDIC PALEBORALFS Field Observations:  
Taxonomy (Subgroup): MIXED ANDIC EUTROBORALFS Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-2            | D       |                              |                               |                           | ORGANIC MAT                           |
| 2-6            |         | 10YR 4/4                     |                               |                           | SILT LOAM                             |
| 6-14           |         | 10YR 5/6                     |                               |                           | SILT LOAM                             |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: FIELD SAMPLE WAS STONY DIFFICULT DIGGING  
NO INDICATORS

## WETLAND DETERMINATION

|                                 |                                                                        |                                                                                                                 |
|---------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) | Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |
| Wetland Hydrology Present?      | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |
| Hydric Soils Present?           | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |

Remarks: ALTHOUGH AT THE TOE OF SLOPE OF ROAD GRADE, SAMPLE SITE HAS BETTER DRAINAGE THAN ADJACENT AREA DESIGNATED AS WETLAND.

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                             |                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>FRONT CR. WETLAND SAMPLE #1</u>                                                                                                                            | Date: <u>10-12-95</u>                                               |
| Applicant/Owner: <u>MDT</u>                                                                                                                                                 | County: <u>SANDERS</u>                                              |
| Investigator: <u>REDMOND/KEENE</u>                                                                                                                                          | State: <u>MT.</u>                                                   |
| Normal Circumstances exist on the site?<br>the site significantly disturbed (Atypical Situation)?<br>the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #1</u> |

VEGETATION

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>ERIGLOSETUM HYMENALE</u> | <u>H</u>  | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>SCIRPUS PALLIDUS</u>     | <u>H</u>  | <u>OBL</u>  | 10. _____              | _____   | _____     |
| <u>CAREX ROSTRATA</u>       | <u>H</u>  | <u>OBL</u>  | 11. _____              | _____   | _____     |
| <u>SALIX SP.</u>            | <u>SH</u> | <u>FACW</u> | 12. _____              | _____   | _____     |
|                             |           |             | 13. _____              | _____   | _____     |
|                             |           |             | 14. _____              | _____   | _____     |
|                             |           |             | 15. _____              | _____   | _____     |
|                             |           |             | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: ROADSIDE DISTURBED VEGETATION

HYDROLOGY

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br>Primary Indicators:<br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br>Secondary Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>2"</u> (in.)<br>Depth to Free Water in Pit: <u>0</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

Remarks: HYDROLOGY RESULTS FROM HUMAN ALTERATION

# SOILS

| Map Unit Name (B11DX)<br>(Series and Phase): <u>NOXON-FERTILE SILT LOAM</u><br>Taxonomy (Subgroup): <u>MIXED ANDIC PALEBROWNFS</u> |         |                              |                               |                           |                                       | Drainage Class: <u>WELL DRAINED</u><br>Field Observations<br>Confirm Mapped Type? <u>(Yes)</u> No |
|------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------|
| Profile Description:                                                                                                               |         |                              |                               |                           |                                       |                                                                                                   |
| Depth (inches)                                                                                                                     | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |                                                                                                   |
| 0-2                                                                                                                                | D       |                              |                               |                           | ORG. MAT.                             |                                                                                                   |
| 2-6                                                                                                                                |         | 10YR 4/4                     |                               |                           | SANDY LOAM                            |                                                                                                   |
| 6-14                                                                                                                               |         | 10YR 5/6                     |                               |                           | LOAMY SAND                            |                                                                                                   |
|                                                                                                                                    |         |                              |                               |                           |                                       |                                                                                                   |
|                                                                                                                                    |         |                              |                               |                           |                                       |                                                                                                   |
|                                                                                                                                    |         |                              |                               |                           |                                       |                                                                                                   |
|                                                                                                                                    |         |                              |                               |                           |                                       |                                                                                                   |

| Hydric Soil Indicators:                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input type="checkbox"/> Gleyed or Low-Chroma Colors | <input checked="" type="checkbox"/> Concretions<br><input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input checked="" type="checkbox"/> Listed on National Hydric Soils List<br><input checked="" type="checkbox"/> Other (Explain in Remarks) |

Remarks: ALTHOUGH THE MAPPED TYPE IS GENERALLY CONFIRMED, THIS SAMPLE LOCATION WAS CONSIDERABLY MORE SANDY. SANDINES MAY HAVE SKEWE COLOR. THE AREA HAS ALSO BEEN DISTURBED FILLED OR REGRADED

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                         |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Hydrophytic Vegetation Present? <u>(Yes)</u> No (Circle)<br>Wetland Hydrology Present? <u>(Yes)</u> No<br>Hydric Soils Present? <u>(Yes)</u> No                                                                                         | (Circle)<br>Is this Sampling Point Within a Wetland? <u>(Yes)</u> No |
| Remarks: <u>THIS WETLAND IS CREATED BY UNUSUAL GRADING AT MCKAY CREEK. A BERM CONNECTING THE ROAD GRADE TO THE UPLAND SLOPES PREVENTS WATER FROM DRAINING INTO MCKAY CREEK FROM THE BORROW DITCH.</u><br><br><u>MAN-INDUCED WETLAND</u> |                                                                      |

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               |                                                                     |                                                               |                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - UPLAND SAMPLE #2</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                            | Date: <u>10-12-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                               |                                                                     |                                                               |                                                               |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | <table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> <td rowspan="3" style="vertical-align: top;">           Community ID: _____<br/>           Transect ID: _____<br/>           Plot ID: <u>UPL #2</u> </td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table> | Yes <input type="radio"/> No <input checked="" type="radio"/> | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #2</u> | Yes <input type="radio"/> No <input checked="" type="radio"/> | Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Yes <input type="radio"/> No <input checked="" type="radio"/>                                                                                                                     | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                               |                                                                     |                                                               |                                                               |
| Yes <input type="radio"/> No <input checked="" type="radio"/>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               |                                                                     |                                                               |                                                               |
| Yes <input type="radio"/> No <input checked="" type="radio"/>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               |                                                                     |                                                               |                                                               |

| Dominant Plant Species    | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|---------------------------|----------|-------------|------------------------|---------|-----------|
| <u>LENTAUREA MACULOSA</u> | <u>H</u> | <u>UPL</u>  | 9. _____               |         |           |
| <u>LEDIGALO SATIVA</u>    | <u>H</u> | <u>NI</u>   | 10. _____              |         |           |
| <u>PHLEUM PRATENSE</u>    | <u>H</u> | <u>FACU</u> | 11. _____              |         |           |
| <u>TRIFOLIUM SP.</u>      | <u>H</u> | <u>FACU</u> | 12. _____              |         |           |
| _____                     |          |             | 13. _____              |         |           |
| _____                     |          |             | 14. _____              |         |           |
| _____                     |          |             | 15. _____              |         |           |
| _____                     |          |             | 16. _____              |         |           |

Percent of Dominant Species that are OBL, FACW or FAC (including FAC-): < 50%

Remarks: DISTURBED VEGETATION ON ROAD FILL

| HYDROLOGY                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br>No Recorded Data Available _____ | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Additional Observations:<br><br>Depth of Surface Water: <u>7/8</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>&gt; 18</u> (in.)                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Remarks: <u>NO INDICATORS 3-4' UP ON FILL SLOPE FROM WATER TABLE</u>                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## SOILS

Map Unit Name (811DX)  
(Series and Phase): NOXUN-FERNLINE SILT LOAM  
Taxonomy (Subgroup): MIXED ANDIC PALEBORALFS  
MIXED ANDIC EUTROBORALFS

Drainage Class: WELL DRAINED  
Field Observations  
Confirm Mapped Type? Yes ☒ No ☐

Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| 0-1/2"            |         |                                 |                                  |                              |                                          |
| 1/2-6"            |         | 10 YR 3/3                       |                                  |                              | ORG. MAT.                                |
| 6"-18"            |         | 10 YR 5/4                       |                                  |                              | SANDY LOAM                               |
|                   |         |                                 |                                  |                              | SANDY LOAM                               |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

Hydro Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: ROAD FILL - 1/4" TO 2" COBBLES  
NO INDICATORS

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                                                                           |                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)<br>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/><br>Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | (Circle)<br>Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Remarks: ROAD FILL RAISED ABOVE LOCAL WATER TABLE, DISTURBED VEGETATION, SOILS                                                                                                                                                                                                            |                                                                                                                    |

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               |                                                                     |                                                               |                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| Object/Site: <u>TROUT CREEK WETLAND SAMPLE #2</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                            | Date: <u>10-12-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                               |                                                                     |                                                               |                                                               |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | <table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td rowspan="3" style="vertical-align: top;">           Community ID: _____<br/>           Transect ID: _____<br/>           Plot ID: <u>WET #2</u> </td> </tr> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table> | Yes <input checked="" type="radio"/> No <input type="radio"/> | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #2</u> | Yes <input checked="" type="radio"/> No <input type="radio"/> | Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Yes <input checked="" type="radio"/> No <input type="radio"/>                                                                                                                     | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                               |                                                                     |                                                               |                                                               |
| Yes <input checked="" type="radio"/> No <input type="radio"/>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               |                                                                     |                                                               |                                                               |
| Yes <input type="radio"/> No <input checked="" type="radio"/>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               |                                                                     |                                                               |                                                               |

**VEGETATION**

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>SALIX AMYGDALOIDES</u>   | <u>SH</u> | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>CAREX SP.</u>            | <u>H</u>  | <u>OBL</u>  | 10. _____              | _____   | _____     |
| <u>TYPHA LATIFOLIA</u>      | <u>H</u>  | <u>OBL</u>  | 11. _____              | _____   | _____     |
| <u>POPULUS TRICHOCARPA</u>  | <u>T*</u> | <u>FAC</u>  | 12. _____              | _____   | _____     |
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u>  | <u>FACW</u> | 13. _____              | _____   | _____     |
| _____                       | _____     | _____       | 14. _____              | _____   | _____     |
| _____                       | _____     | _____       | 15. _____              | _____   | _____     |
| _____                       | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks:  
\* POPULUS ARE SAPLINGS

**HYDROLOGY**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input checked="" type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>n/a</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Remarks:  
STANDING WATER WITHIN 5' OF PIT  
PIT WOULD EVENTUALLY FILL WITH FREE WATER

## SOILS

|                                                                     |  |                                                                                          |  |
|---------------------------------------------------------------------|--|------------------------------------------------------------------------------------------|--|
| Map Unit Name<br>(Series and Phase): <u>NOXUN-FERLINE SILT LOAM</u> |  | Drainage Class: <u>WELL-DRAINED</u>                                                      |  |
| Taxonomy (Subgroup): <u>MIXED ANDIC PALEBORALFS</u>                 |  | Field Observations                                                                       |  |
| Taxonomy (Subgroup): <u>MIXED ANDIC EUTROBORALFS</u>                |  | Confirm Mapped Type? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |

| Profile Description: |         | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|----------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| Depth<br>(inches)    | Horizon |                                 |                                  |                              |                                          |
| 0-2                  | D       |                                 |                                  |                              | ORGANIC MAT                              |
| 2-8                  |         | 10YR 4/2                        |                                  |                              | SANDY LOAM                               |
| 8-14                 |         | 10YR 4/2                        |                                  |                              | SANDY LOAM                               |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |

|                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydric Soil Indicators:                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                     |
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |

|          |                                                                      |
|----------|----------------------------------------------------------------------|
| Remarks: | THICK ORGANIC MAT<br>COLOR CONSISTENT THROUGHOUT PROFILE, NO MOTTLES |
|----------|----------------------------------------------------------------------|

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                                                                           |                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)<br>Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No<br>Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | (Circle)<br>Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Remarks: THIS WETLAND AREA IS SIMILAR TO WETLAND #1<br>IT IS THE RESULT OF REGRADING<br><br>MAN-INDUCED WETLAND                                                                                                                                                                           |                                                                                                                    |

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Subject/Site: <u>TROUT CR. UPLAND SAMPLE #3</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>BERMOND/KEENE</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Date: <u>10-12-75</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes</span> <span style="margin-left: 20px;"><input type="radio"/> No</span><br>Is the site significantly disturbed (Atypical Situation)? <span style="margin-left: 20px;"><input type="radio"/> Yes</span> <span style="margin-left: 20px;"><input checked="" type="radio"/> No</span><br>Is the area a potential Problem Area? <span style="margin-left: 20px;"><input type="radio"/> Yes</span> <span style="margin-left: 20px;"><input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #3</u>  |

VEGETATION

| Dominant Plant Species     | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>PHLEUM PRATENSE</u>     | <u>H</u>  | <u>FACU</u> | 9. _____               |         |           |
| <u>ANUS PONDEROSA</u>      | <u>T</u>  | <u>FACU</u> | 10. _____              |         |           |
| <u>CIRSIIUM SP.</u>        | <u>H</u>  | <u>FACU</u> | 11. _____              |         |           |
| <u>SALIX SP.</u>           | <u>SH</u> | <u>FACW</u> | 12. _____              |         |           |
| <u>RUROSTIUS ALBA</u>      | <u>H</u>  | <u>FACW</u> | 13. _____              |         |           |
| <u>POPULUS TRECHOCARPA</u> | <u>T</u>  | <u>FAC</u>  | 14. _____              |         |           |
| <u>PERIDIUM AQUILUM</u>    | <u>H</u>  | <u>FACU</u> | 15. _____              |         |           |
|                            |           |             | 16. _____              |         |           |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: RIPARIAN VEGETATION BUT NOT WETLAND

HYDROLOGY

|                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input checked="" type="checkbox"/> Other<br>No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>&gt; 18</u> (in.)                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Remarks: DISTINCTIVE TERRACE 1/2 2' ABOVE HIGH WATER MARK  
RIPARIAN AREA  
BANK ON S. SIDE HIGHER THAN BANK ON N. SIDE

## SOILS

(B11DX)

Map Unit Name  
(Series and Phase): NOXON-FERNLINE SILT LOAM

Taxonomy (Subgroup): MIXED ANDIC PALEBORALES

Drainage Class: WELL DRAINED

Field Observations  
Confirm Mapped Type? ☒ Yes ☐ No

Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| 0-7               | D       |                                 |                                  |                              | ORG MAT                                  |
| 1-18              |         | 10YR 3/3                        |                                  |                              | SILT LOAM                                |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: 1"-4" COBBLES  
VERY STONEY  
CONSISTENT THROUGHOUT PROFILE

## WETLAND DETERMINATION

|                                                                                                                    |                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)             | Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)                  |                                                                                                                 |
| Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)                       |                                                                                                                 |
| Remarks: DISTINCTLY RIPARIAN AREA, PROBABLY FLOODS OCCASSIONALLY FOR SHORT PERIODS BUT NOT OF SUFFICIENT DURATIONS |                                                                                                                 |

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Object/Site: <u>TRAUT CR. - WETLAND SAMPLE #3</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                            | Date: <u>10-12-75</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #3</u>  |

**VEGETATION**

| Dominant Plant Species      | Stratum   | Indicator    | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|--------------|------------------------|---------|-----------|
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u>  | <u>FACW</u>  | 9. _____               | _____   | _____     |
| <u>SALIX SITCHENSIS</u>     | <u>SH</u> | <u>FACW</u>  | 10. _____              | _____   | _____     |
| <u>JUNCUS RUFOUS</u>        | <u>H</u>  | <u>FACW+</u> | 11. _____              | _____   | _____     |
| <u>CORNUS STOLONIFERA</u>   | <u>SH</u> | <u>FACW</u>  | 12. _____              | _____   | _____     |
| <u>POPULUS TRICHOCARPA</u>  | <u>T</u>  | <u>FAC</u>   | 13. _____              | _____   | _____     |
| <u>AGROSTIS ALBA</u>        | <u>H</u>  | <u>FACW</u>  | 14. _____              | _____   | _____     |
| _____                       | _____     | _____        | 15. _____              | _____   | _____     |
| _____                       | _____     | _____        | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

> 50%

Remarks: 10" CALIPER ASPENS

**HYDROLOGY**

|                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br>No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input checked="" type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input checked="" type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>7/0</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 13</u> (in.)<br>Depth to Saturated Soil: <u>718</u> (in.)                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Remarks: THIS AREA IS SLIGHTLY TERRACED ABOVE CHANNEL BOTTOM AND HAS MICRO CHANNELS THROUGHOUT, STREAM IS DRY COBBLE SUBSTRATE AT TIME OF INVESTIGATION.

## SOILS

Map Unit Name (811DX)  
(Series and Phase): NOXLIN - FERNLINE - SILT LOAM  
Taxonomy (Subgroup): MIXED ANDIC PALEBORALFS  
MIXED ANDIC ELTERBORALFS

Drainage Class: WELL-DRAINED  
Field Observations  
Confirm Mapped Type? (Yes) No

Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| <u>0-4</u>        |         | <u>10YR. 4/3</u>                |                                  |                              | <u>ORGANIC MAT.</u>                      |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

Hydric Soil Indicators:

|                                                      |                                                                                          |
|------------------------------------------------------|------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input checked="" type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                                |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                               |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                            |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                                      |

Remarks: UNABLE TO DIG PAST 4"  
SANDY GRAVEL POINT BAR, IN STREAM COMPLEX

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                                                                           |                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)<br>Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No<br>Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Remarks: RIPARIAN WETLAND AREA                                                                                                                                                                                                                                                            |                                                                                                        |

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                 |                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - UPLAND SAMPLE #4</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KRAJE</u>                                                                          | Date: <u>10-12-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u>                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                 |                                                                     |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.)               | <table style="width: 100%;"> <tr> <td style="text-align: center;"> <input checked="" type="radio"/> Yes   <input type="radio"/> No<br/> <input type="radio"/> Yes   <input checked="" type="radio"/> No<br/> <input type="radio"/> Yes   <input checked="" type="radio"/> No         </td> <td style="vertical-align: top;">           Community ID: _____<br/>           Transect ID: _____<br/>           Plot ID: <u>UPL #4</u> </td> </tr> </table> | <input checked="" type="radio"/> Yes <input type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #4</u> |
| <input checked="" type="radio"/> Yes <input type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #4</u>                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                 |                                                                     |

| Dominant Plant Species     | Stratum   | Indicator    | Dominant Plant Species | Stratum | Indicator |
|----------------------------|-----------|--------------|------------------------|---------|-----------|
| <u>QUERCUS PONDEROSA</u>   | <u>T</u>  | <u>FACU-</u> | 9. _____               | _____   | _____     |
| <u>QUERCUS LAEVOFOLIA</u>  | <u>T</u>  | <u>FAC-</u>  | 10. _____              | _____   | _____     |
| <u>PETERIUM AQUIFOLIUM</u> | <u>H</u>  | <u>FACU</u>  | 11. _____              | _____   | _____     |
| <u>PROSTRA-TA SMITHII</u>  | <u>H</u>  | <u>FACU</u>  | 12. _____              | _____   | _____     |
| <u>HEMLOCK MALVOSA</u>     | <u>H</u>  | <u>UPL</u>   | 13. _____              | _____   | _____     |
| <u>BATAEGUS SP</u>         | <u>SH</u> | <u>FAC</u>   | 14. _____              | _____   | _____     |
| <u>POPULUS TREMULOIDES</u> | <u>T</u>  | <u>FAC+</u>  | 15. _____              | _____   | _____     |
|                            |           |              | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: SIDE SLOPE ABOVE FLOODPLAIN

| HYDROLOGY                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Recorded Data (Describe in Remarks):</b><br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input checked="" type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| <b>Observations:</b><br><br>Depth of Surface Water: <u>n/a</u> (in.)<br>Depth to Free Water in Pit: <u>&gt;18</u> (in.)<br>Depth to Saturated Soil: <u>&gt;18</u> (in.)                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Remarks: <u>NO INDICATORS</u>                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

# SOILS

Map Unit Name (BIDD) NOXON-FERNUNE SILT LOAM

(Series and Phase): MIXED ANDIC PALEZORALFS

Taxonomy (Subgroup): MIXED ANDIC EUTROBORALFS

Drainage Class: WELL DRAINED

Field Observations

Confirm Mapped Type? Yes No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-1            | D       |                              |                               |                           | ORG. MAT.                             |
| 1-18           |         | 7.5YR 6/4                    |                               |                           | SILTY LOAM                            |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: 1"-4" COBBLES  
VERY STONEY AS IN SOIL DESCRIPTION  
NO INDICATORS

## WETLAND DETERMINATION

|                                                        |                                                                 |
|--------------------------------------------------------|-----------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <u>No</u> (Circle) | Is this Sampling Point Within a Wetland? Yes <u>No</u> (Circle) |
| Wetland Hydrology Present? Yes <u>No</u> (Circle)      |                                                                 |
| Hydric Soils Present? Yes <u>No</u> (Circle)           |                                                                 |

Remarks: THIS SAMPLE POINT TAKEN 4-6' ABOVE A VERY DISTINCT NICK POINT SEPARATING THE BROAD FLAT FLOODPLAIN (WETLAND) ON A STEEP SIDEHILL SLOPE,

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - WETLAND SAMPLE #4</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                           | Date: <u>10-12-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u> |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #4</u> |

**VEGETATION**

| Dominant Plant Species  | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-------------------------|----------|-------------|------------------------|---------|-----------|
| <u>NYCTAGUS ALBA</u>    | <u>H</u> | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>CAREX MICROPTERA</u> | <u>H</u> | <u>FAC</u>  | 10. _____              | _____   | _____     |
| <u>PHLEUM PRATENSE</u>  | <u>H</u> | <u>FACU</u> | 11. _____              | _____   | _____     |
| _____                   | _____    | _____       | 12. _____              | _____   | _____     |
| _____                   | _____    | _____       | 13. _____              | _____   | _____     |
| _____                   | _____    | _____       | 14. _____              | _____   | _____     |
| _____                   | _____    | _____       | 15. _____              | _____   | _____     |
| _____                   | _____    | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: WELL ZONED THIS SAMPLE SITE TENDING TOWARD FRINGE, JUNCUS SP. SAUX SP, CAREX SP., SCIRPUS SP. ALL FOUND TOWARD CENTER OF WETLAND

**HYDROLOGY**

|                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input checked="" type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br>No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>n/a</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

Remarks: SATURATED TO SURFACE

# SOILS

|                                               |  |                               |  |
|-----------------------------------------------|--|-------------------------------|--|
| Map Unit Name (811DX)                         |  | Drainage Class: WELL DRAINED  |  |
| (Series and Phase): NOXLIN-FERLINE SILT LOAM  |  | Field Observations            |  |
| Taxonomy (Subgroup): MIXED ANDIC PALEBORALFS  |  | Confirm Mapped Type? Yes (No) |  |
| Taxonomy (Subgroup): MIXED ANDIC EUTROBORALFS |  |                               |  |

| Profile Description: |         |                              |                               |                           |                                       |
|----------------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| Depth (inches)       | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
| 0-2                  | D       |                              |                               |                           | ORGANIC MAT                           |
| 2-4                  |         | 7.5YR 6/2                    |                               |                           | SANDY CLAY                            |
| 4-14                 |         | 10YR 5/2                     | 10YR 6/1                      | DIST. COM. LARGE (50-50)  | SANDY CLAY                            |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |

| Hydric Soil Indicators:                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |

Remarks: THIS IS A WELL DEVELOPED WETLAND SOIL INCLUDING DISTINCT MOTTLES.

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                                                                           |                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)<br>Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No<br>Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No | Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|

Remarks: THIS IS A VERY NICE, WELL FORMED, WELL ZONED NATURAL WETLAND.

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                             |                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - UOLAND SAMPLE #5</u>                                                                                                                            | Date: <u>10-12-95</u>                                               |
| Applicant/Owner: <u>MDT</u>                                                                                                                                                 | County: <u>SANDERS</u>                                              |
| Investigator: <u>REDMOND/KEENE</u>                                                                                                                                          | State: <u>MT</u>                                                    |
| Normal Circumstances exist on the site?<br>The site significantly disturbed (Atypical Situation)?<br>The area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #5</u> |

| Dominant Plant Species      | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|----------|-------------|------------------------|---------|-----------|
| <u>PINUS PONDEROSA</u>      | <u>T</u> | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u> | <u>FACW</u> | 10. _____              | _____   | _____     |
| <u>PEROWIA PRATENSE</u>     | <u>H</u> | <u>FACU</u> | 11. _____              | _____   | _____     |
| <u>ENTAUZEIA MACULOSA</u>   | <u>H</u> | <u>UPL</u>  | 12. _____              | _____   | _____     |
| <u>GYROPSYRAN SMITHII</u>   | <u>H</u> | <u>FACU</u> | 13. _____              | _____   | _____     |
| <u>PHLEUM PRATENSE</u>      | <u>H</u> | <u>FACU</u> | 14. _____              | _____   | _____     |
| _____                       | _____    | _____       | 15. _____              | _____   | _____     |
| _____                       | _____    | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: NOT WET

| HYDROLOGY                                                                                                                                                                                                              | Wetland Hydrology Indicators:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input checked="" type="checkbox"/> Other<br>No Recorded Data Available | Primary Indicators:<br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br>Secondary Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>7/8</u> (in.)<br>Depth to Free Water in Pit: <u>718"</u> (in.)<br>Depth to Saturated Soil: <u>718"</u> (in.)                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Remarks: <u>NO INDICATORS</u>                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

# SOILS

Map Unit Name

(B1DX)

(Series and Phase):

NOXON-FERNLINE SILT LOAM

Drainage Class:

WELL DRAINED

Taxonomy (Subgroup):

MIXED ANDIC PNEBORAFS

Field Observations

Confirm Mapped Type?

Yes No

Profile Description:

| Depth<br>(inches) | Horizon  | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|----------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| <u>0-1</u>        | <u>D</u> |                                 |                                  |                              | <u>ORG. MAT.</u>                         |
| <u>1-4</u>        |          | <u>10YR 5/2</u>                 |                                  |                              | <u>SILTY CLAY LOAM</u>                   |
| <u>4-18</u>       |          | <u>10YR 4/6</u>                 | <u>10YR 6/2</u>                  | <u>(DM. FAINT)</u>           | <u>SILT LOAM</u>                         |
|                   |          |                                 |                                  |                              |                                          |
|                   |          |                                 |                                  |                              |                                          |
|                   |          |                                 |                                  |                              |                                          |
|                   |          |                                 |                                  |                              |                                          |

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors

- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

BORDERLINE WETLAND SOIL VERY FAINT MOTTLES

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?

Yes No (Circle)

Wetland Hydrology Present?

Yes No

Hydric Soils Present?

Yes No

(Circle)

Is this Sampling Point Within a Wetland?

Yes No

Remarks:

THIS IS AN UPLAND SAMPLE SITE ALONG A VERY GRADUAL GRADE FROM WETLAND TO UPLAND. BORDERLINE.

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>PROUT CR. - WETLAND SAMPLE #5</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KRONE</u>                                                                                                                                                                                                                                                                                                                                                                             | Date: <u>10-12-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the site significantly disturbed (Atypical Situation)? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>Is the area a potential Problem Area? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #5</u>  |

VEGETATION

| Dominant Plant Species      | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|----------|-------------|------------------------|---------|-----------|
| <u>PHILEUM PRATENSE</u>     | <u>H</u> | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>AGROSTIS ALBA</u>        | <u>H</u> | <u>FACW</u> | 10. _____              | _____   | _____     |
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u> | <u>FACW</u> | 11. _____              | _____   | _____     |
| <u>RUMEX CRISPUS</u> *      | <u>H</u> | <u>FACW</u> | 12. _____              | _____   | _____     |
|                             |          |             | 13. _____              | _____   | _____     |
|                             |          |             | 14. _____              | _____   | _____     |
|                             |          |             | 15. _____              | _____   | _____     |
|                             |          |             | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: \* CURLY COCK INDIVIDUAL PLANT

VERY GRADUAL GRADIENT, DIFFICULT VEGETATION, SAMPLE SITE WAS CHOSEN AT A POINT WHERE AGROSTIS BECAME DOMINANT

HYDROLOGY

|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>1/4</u> (in.)<br>Depth to Free Water in Pit: <u>&gt;18"</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Remarks: STANDING WATER WITHIN 5' (2" DEEP)  
SUBTLE MICRO RELIEF CHANGES AND VARIES CONSIDERABLY

# SOILS

Map Unit Name (BII DX)  
 (Series and Phase): NOXIN-FERNLINE SILT LOAM  
 Taxonomy (Subgroup): MIXED ANDIC PALEDBRALES  
 MIXED ANDIC EUTROBORALS

Drainage Class: WELL DRAINED  
 Field Observations  
 Confirm Mapped Type? Yes No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-2            | D       |                              |                               |                           | ORG. MAT.                             |
| 1-6            |         | 7.5YR 6/2                    |                               |                           | SILTY CLAY LOAM                       |
| 6-18           |         | 7.5YR 7/2                    | 7.5YR 6/0                     | COM. FAINT.               | SANDY LOAM                            |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                                 |                                                                               |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input checked="" type="checkbox"/> Gleyed or Low-Chrome Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: HIGHER CLAY CONTENT THAN UPLAND SAMPLE  
 OCCASIONAL COBBLES (4")

## WETLAND DETERMINATION

|                                                 |                                                          |
|-------------------------------------------------|----------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes No (Circle) | Is this Sampling Point Within a Wetland? Yes No (Circle) |
| Wetland Hydrology Present? Yes No               |                                                          |
| Hydric Soils Present? Yes No                    |                                                          |

Remarks: DIFFICULT TO DETERMINE LINE - LOW MICRO RELIEF  
 AND VERY GRADUAL OVERALL GRADE.

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Subject/Site: <u>FRUIT CR. - UPLAND SAMPLE #6</u><br>Applicant/Owner: <u>MPT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                            | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #16</u> |

**VEGETATION**

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>LELIDTUS OFFICINALIS</u> | <u>H</u>  | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>LELIDTUS ALBA</u>        | <u>H</u>  | <u>FACU</u> | 10. _____              | _____   | _____     |
| <u>LENTAUREA MACULOSA</u>   | <u>H</u>  | <u>UPL</u>  | 11. _____              | _____   | _____     |
| <u>TERIDUM AQUILUM</u>      | <u>H</u>  | <u>FACU</u> | 12. _____              | _____   | _____     |
| <u>TRIFOLIUM SP.</u>        | <u>H</u>  | <u>FACU</u> | 13. _____              | _____   | _____     |
| <u>SYMPHORICARPUS ALBUS</u> | <u>SH</u> | <u>FACU</u> | 14. _____              | _____   | _____     |
| _____                       | _____     | _____       | 15. _____              | _____   | _____     |
| _____                       | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: \_\_\_\_\_

**HYDROLOGY**

|                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Date (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br>No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br>Depth of Surface Water: <u>~1/2</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>710</u> (in.)                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Remarks: NO INDICATORS

[illegible]

Map Unit Name (78BX)  
(Series and Phase): FERNLINE SILT LOAM 0 TO 4 % Drainage Class: WELL DRAINED  
Taxonomy (Subgroup): MIXED ANDC EUTROBORALS Field Observations  
Confirm Mapped Type? Yes No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-2            |         |                              |                               |                           | ORG MAT                               |
| 2-4            |         | 7.5YR 3/2                    |                               |                           | SANDY LOAM                            |
| 4-18           |         | 7.5YR 4/6                    |                               |                           | SILTY CLAY LOAM                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: 1/2" TO 3" COBBLES, SANDY GRAVEL  
DISTURBED ROAD FILL SLIGHTLY DIFFERENT THAN MAPPED TYPE

## WETLAND DETERMINATION

|                                 |                                                                        |                                                                                                                 |
|---------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) | Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |
| Wetland Hydrology Present?      | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |
| Hydric Soils Present?           | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |
| Remarks:                        |                                                                        |                                                                                                                 |

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                       |                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - WETLAND STUDY #6</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                 | Date: <u>10-13-75</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Are Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #6</u>  |

**VEGETATION**

| Dominant Plant Species  | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-------------------------|----------|-------------|------------------------|---------|-----------|
| <u>TYPHA LATIFOLIA</u>  | <u>H</u> | <u>OBL</u>  | 9. _____               | _____   | _____     |
| <u>AGROSTIS ALBA</u>    | <u>H</u> | <u>FACW</u> | 10. _____              | _____   | _____     |
| <u>CAREX MICROPTERA</u> | <u>H</u> | <u>FAC</u>  | 11. _____              | _____   | _____     |
| _____                   | _____    | _____       | 12. _____              | _____   | _____     |
| _____                   | _____    | _____       | 13. _____              | _____   | _____     |
| _____                   | _____    | _____       | 14. _____              | _____   | _____     |
| _____                   | _____    | _____       | 15. _____              | _____   | _____     |
| _____                   | _____    | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: VERY SMALL LINEAR AREA IN THE ROAD BORDER DITCH

**HYDROLOGY**

|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br>Depth of Surface Water: <u>4"</u> (in.)<br>Depth to Free Water in Pitt: <u>0</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Remarks: STOPPED-UP CULVERT

## SOILS

Map Unit Name (78BX)  
(Series and Phase): FERNLINE SILT LOAM 0-4%  
Taxonomy (Subgroup): MIXED ANDK EUTROBORALES  
Drainage Class: WELL DRAINED  
Field Observations  
Confirm Mapped Type? (Yes) No

Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| <u>0-3</u>        |         |                                 |                                  |                              | <u>ORGANIC MAT.</u>                      |
| <u>3-7</u>        |         | <u>7.5YR 6/2</u>                |                                  |                              | <u>CLAY LOAM</u>                         |
| <u>7-18</u>       |         | <u>10YR 6/2</u>                 | <u>10YR 5/8</u>                  | <u>MANY, DIST, MED</u>       | <u>CLAY LOAM</u>                         |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

Hydric Soil Indicators:

|                                                                 |                                                                               |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: 1/4" TO 1" COBBLES  
MOTTLES ARE VERY DISTINCT

## WETLAND DETERMINATION

|                                                                                                                                                                    |                                      |             |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|-----------------------------------------|
| Hydrophytic Vegetation Present?                                                                                                                                    | <input checked="" type="radio"/> Yes | No (Circle) | (Circle)                                |
| Wetland Hydrology Present?                                                                                                                                         | <input checked="" type="radio"/> Yes | No          |                                         |
| Hydric Soils Present?                                                                                                                                              | <input checked="" type="radio"/> Yes | No          |                                         |
| Is this Sampling Point Within a Wetland?                                                                                                                           |                                      |             | <input checked="" type="radio"/> Yes No |
| Remarks: VERY SMALL, MAN-INDUCED WETLAND--CREATED IN A BORROW DITCH BY IMPROPER DRAINAGE. THE CULVERT IN PLACE TO DRAIN THIS AREA IS PLUGGED WITH SILT AND DEBRIS. |                                      |             |                                         |

Approved by HQUŠACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                          |                                                                  |                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - UPLAND SAMPLE #7</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                             | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>                                                                                                                                                                                                                                                                                      |                                                                  |                                                                  |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | <table style="width: 100%;"> <tr> <td style="text-align: center;"> <input checked="" type="radio"/> Yes<br/> <input type="radio"/> No         </td> <td style="text-align: center;"> <input type="radio"/> Yes<br/> <input checked="" type="radio"/> No         </td> </tr> </table> Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #7</u> | <input checked="" type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input checked="" type="radio"/> No |
| <input checked="" type="radio"/> Yes<br><input type="radio"/> No                                                                                                                  | <input type="radio"/> Yes<br><input checked="" type="radio"/> No                                                                                                                                                                                                                                                                                         |                                                                  |                                                                  |

**VEGETATION**

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>PERIDUM AQUILUM</u>      | <u>H</u>  | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>PINUS CONTORTA</u>       | <u>T</u>  | <u>FAC-</u> | 10. _____              | _____   | _____     |
| <u>ACHILLEA MILLEFOLIUM</u> | <u>H</u>  | <u>FACU</u> | 11. _____              | _____   | _____     |
| <u>RUBUS SP.</u>            | <u>SH</u> | _____       | 12. _____              | _____   | _____     |
| <u>EQUISETUM HYMENALAE</u>  | <u>H</u>  | <u>FACW</u> | 13. _____              | _____   | _____     |
| <u>PERACLEUM LANATUM</u>    | <u>H</u>  | <u>FAC</u>  | 14. _____              | _____   | _____     |
| <u>CENTAUREA MACULOSA</u>   | <u>H</u>  | <u>UPL</u>  | 15. _____              | _____   | _____     |
| <u>SYMPHORICARPOS ALBUS</u> | <u>SH</u> | <u>FACU</u> | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: DISTURBED ROADSIDE VEGETATION

**HYDROLOGY**

|                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>2 1/2</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>&gt; 18</u> (in.)                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Remarks: NO INDICATORS

## SOILS

(78EX)

Map Unit Name  
(Series and Phase): BORDERLINE SILT LOAM 0 to 4%

Taxonomy (Subgroup): MIXED ANDIC ELTIDOCRAIFS

Drainage Class: WELL DRAINED

Field Observations  
Confirm Mapped Type? (Yes) No

**Profile Description:**

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| 0-1/2             | O       |                                 |                                  |                              | ORGANIC                                  |
| 1/2-6             |         | 10YR 6/3                        |                                  |                              | SILT LOAM                                |
| 6-18              |         | 10YR 7/1                        | 10YR 6/3                         | FEW. DIST. SMALL             | SILT LOAM                                |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

**Hydric Soil Indicators:**

|                                                                 |                                                                               |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: BORDERLINE HYDRIC

## WETLAND DETERMINATION

|                                                                                                                                                     |                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Hydrophytic Vegetation Present?    Yes <u>No</u> (Circle)<br>Wetland Hydrology Present?        Yes <u>No</u><br>Hydric Soils Present? <u>Yes</u> No | Is this Sampling Point Within a Wetland?    Yes <u>No</u> (Circle) |
| Remarks:                                                                                                                                            |                                                                    |

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TRUIT CR- WETLAND SAMPLE #7</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                             | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #7</u>  |

**VEGETATION**

| Dominant Plant Species   | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|--------------------------|----------|-------------|------------------------|---------|-----------|
| <u>CAREX SP.</u>         | <u>H</u> | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>CAREX MICROPTERA</u>  | <u>H</u> | <u>FAC</u>  | 10. _____              | _____   | _____     |
| <u>ARABIS SP.</u>        | <u>H</u> | <u>FAC</u>  | 11. _____              | _____   | _____     |
| <u>TYPHA LATIFOLIA *</u> | _____    | _____       | 12. _____              | _____   | _____     |
| _____                    | _____    | _____       | 13. _____              | _____   | _____     |
| _____                    | _____    | _____       | 14. _____              | _____   | _____     |
| _____                    | _____    | _____       | 15. _____              | _____   | _____     |
| _____                    | _____    | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: \*TYPHA LATIFOLIA IS DOMINANT JUST BEYOND ROW

**HYDROLOGY**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Date (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input checked="" type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input checked="" type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>1</u> (in.)<br>Depth to Free Water in Pit: <u>1/2</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

Remarks: HYDROLOGY DRAWS TOWARD CULVERT

# SOILS

Map Unit Name (7BBX)

(Series and Phase): FERNLINE SILT LOAM 0-490

Drainage Class: WELL DRAINED

Taxonomy (Subgroup): MIXED ANDIC EUTROBORALS

Field Observations

Confirm Mapped Type? (Yes) No

## Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-1 1/2"       | O       |                              |                               |                           | ORGANIC                               |
| 1 1/2"-5"      |         | 10.5YR 5/2                   |                               |                           | CLAY LOAM                             |
| 5-18"          |         | 7.5YR 6/2                    | 7.5YR 2/0<br>10YR 6/8         | COM. DIST. LARGE          | CLAY LOAM                             |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

## Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors

- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: TWO DIFFERENT MOTTLE COLORS

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)  
Wetland Hydrology Present? (Yes) No  
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No

Remarks: CATTAILS BEYOND R/W LINE  
LOW SWALE AREA CONTINUES BACK INTO CONIFEROUS FOREST

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                               |                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>FRONT CR. - WINDY CIRCLE #8</u>                                                                                                                              | Date: <u>10-13-75</u>                                               |
| Applicant/Owner: <u>MDT</u>                                                                                                                                                   | County: <u>SANDERS</u>                                              |
| Investigator: <u>REDMOND/KEENE</u>                                                                                                                                            | State: <u>MT</u>                                                    |
| o Normal Circumstances exist on the site?<br>the site significantly disturbed (Atypical Situation)?<br>the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #8</u> |

VEGETATION

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>SYMPHORICARPUS ALBUS</u> | <u>SH</u> | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u>  | <u>FACW</u> | 10. _____              | _____   | _____     |
| <u>CIRSIIUM VULGARE</u>     | <u>H</u>  | <u>FACU</u> | 11. _____              | _____   | _____     |
| _____                       | _____     | _____       | 12. _____              | _____   | _____     |
| _____                       | _____     | _____       | 13. _____              | _____   | _____     |
| _____                       | _____     | _____       | 14. _____              | _____   | _____     |
| _____                       | _____     | _____       | 15. _____              | _____   | _____     |
| _____                       | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: DISTURBED ROADSIDE VEGETATION

HYDROLOGY

|                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Recorded Data (Describe in Remarks):<br/>____ Stream, Lake, or Tide Gauge<br/>____ Aerial Photographs<br/>____ Other _____<br/>No Recorded Data Available</p> <p>Field Observations:</p> <p>Depth of Surface Water: <u>N/A</u> (in.)</p> <p>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)</p> <p>Depth to Saturated Soil: <u>&gt; 18</u> (in.)</p> | <p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <ul style="list-style-type: none"><li>____ Inundated</li><li>____ Saturated in Upper 12 Inches</li><li>____ Water Marks</li><li>____ Drift Lines</li><li>____ Sediment Deposits</li><li>____ Drainage Patterns in Wetlands</li></ul> <p>Secondary Indicators (2 or more required):</p> <ul style="list-style-type: none"><li>____ Oxidized Root Channels in Upper 12 Inches</li><li>____ Water-Stained Leaves</li><li>____ Local Soil Survey Data</li><li>____ FAC-Neutral Test</li><li>____ Other (Explain in Remarks)</li></ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Remarks: NO INDICATORS, SITE IS 4-5' UP ON ROADFILL SIDE SLOPE

# SOILS

| Map Unit Name (7BBX)<br>(Series and Phase): <u>BORDERLINE SILT LOAM 0 TO 4%</u> |         |                              |                               |                           |                                       | Drainage Class: <u>WELL DRAINED</u><br>Field Observations<br>Confirm Mapped Type? <u>(Yes)</u> No |  |
|---------------------------------------------------------------------------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------|--|
| Taxonomy (Subgroup): <u>MNED ANDIC EUTROBORALS</u>                              |         |                              |                               |                           |                                       |                                                                                                   |  |
| <b>Profile Description:</b>                                                     |         |                              |                               |                           |                                       |                                                                                                   |  |
| Depth (inches)                                                                  | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |                                                                                                   |  |
| 0-1/2                                                                           | 0       |                              |                               |                           | ORGANIC                               |                                                                                                   |  |
| 1/2-6                                                                           |         | 10YR 6/3                     |                               |                           | SILT LOAM                             |                                                                                                   |  |
| 6-18                                                                            |         | 10YR 7/1                     | 10YR 6/8                      | FEW, DIST, SMALL          | SILT LOAM                             |                                                                                                   |  |
|                                                                                 |         |                              |                               |                           |                                       |                                                                                                   |  |
|                                                                                 |         |                              |                               |                           |                                       |                                                                                                   |  |
|                                                                                 |         |                              |                               |                           |                                       |                                                                                                   |  |
|                                                                                 |         |                              |                               |                           |                                       |                                                                                                   |  |

|                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hydric Soil Indicators:</b>                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                          |
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input checked="" type="checkbox"/> Gleyed or Low-Chrome Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |

Remarks: ROAD FILL, BORDERLINE HYDRIC  
SIMILAR TO UPLAND #7

## WETLAND DETERMINATION

|                                                                                                                                                    |                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <u>No</u> (Circle)<br>Wetland Hydrology Present? Yes <u>No</u> (Circle)<br>Hydric Soils Present? <u>Yes</u> No | Is this Sampling Point Within a Wetland? Yes <u>No</u> (Circle) |
| Remarks:                                                                                                                                           |                                                                 |

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                      |                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - WETLAND SAMPLE #3</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND / KEENE</u>                                                            | Date: <u>10-13-75</u><br>County: <u>SANDERS</u><br>State: <u>MT</u> |
| Do Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #8</u> |

**VEGETATION**

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>AGROSTIS ALBA</u>        | <u>H</u>  | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>PHLEUM PRATENSE</u>      | <u>H</u>  | <u>FACU</u> | 10. _____              | _____   | _____     |
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u>  | <u>FACW</u> | 11. _____              | _____   | _____     |
| <u>CAREX SP.</u>            | <u>H</u>  | <u>FACW</u> | 12. _____              | _____   | _____     |
| <u>EQUISETUM HYMENAE</u>    | <u>H</u>  | <u>FACW</u> | 13. _____              | _____   | _____     |
| <u>CORNUS STOLONIFERA</u>   | <u>SH</u> | <u>FACW</u> | 14. _____              | _____   | _____     |
| _____                       | _____     | _____       | 15. _____              | _____   | _____     |
| _____                       | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: FOREST EDGE, DENSE CONIFEROUS FOREST AT EDGE OF ROW

**HYDROLOGY**

|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>.5</u> (in.)<br>Depth to Free Water in Pit: <u>1/2</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Remarks: INNUNDATION VERY SLIGHT, VARYING .5 TO 2"

# SOILS

Map Unit Name

(78BX)

(Series and Phase): FERNLINE SILT LOAM

Drainage Class: WELL DRAINED

Taxonomy (Subgroup): MIXED ANDIC ENTROBOZALFS

Field Observations

Confirm Mapped Type? Yes No

## Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| 0-2               |         |                                 |                                  |                              |                                          |
| 2-6               |         | 10YR 7/3                        |                                  |                              | ORG. MAT                                 |
| 6-9               |         | 10YR 4/1                        |                                  |                              | SANDY LOAM                               |
| 9-18              |         | 10YR 5/2                        | 10YR 5/1                         |                              | SILT LOAM                                |
|                   |         |                                 |                                  |                              | SILT LOAM                                |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

## Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors

- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: VERY BLACK

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?

Yes No (Circle)

Wetland Hydrology Present?

Yes No

Hydric Soils Present?

Yes No

(Circle)

Is this Sampling Point Within a Wetland?

Yes No

Remarks:

SINUOUS MICROCHANNELED, DRAINAGE DITCH PARALLELS ROADWAY  
THEN FALLS AWAY WITH TOPOGRAPHY CHANGE.

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                       |                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>TRONT CR UPLAND SLUDGE #9</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                   | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u> |
| Are Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #9</u> |

**VEGETATION**

| Dominant Plant Species     | Stratum  | Indicator    |           |
|----------------------------|----------|--------------|-----------|
| <u>QUERCUS PONDEROSA *</u> | <u>T</u> | <u>FACU-</u> | 9. _____  |
| <u>ABIES LASIOCARPA *</u>  | <u>T</u> | <u>FACU</u>  | 10. _____ |
| <u>TRIFOLIUM SP</u>        | <u>H</u> | <u>FACU</u>  | 11. _____ |
| <u>RUBUS SP.</u>           | <u>H</u> | <u>FAC?</u>  | 12. _____ |
|                            |          |              | 13. _____ |
|                            |          |              | 14. _____ |
|                            |          |              | 15. _____ |
|                            |          |              | 16. _____ |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

< 50%

Remarks: \* SAPLING S

**HYDROLOGY**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Recorded Data (Describe in Remarks):</b></p> <p> <input type="checkbox"/> Stream, Lake, or Tide Gauge<br/> <input type="checkbox"/> Aerial Photographs<br/> <input type="checkbox"/> Other _____         </p> <p><input type="checkbox"/> No Recorded Data Available</p> <hr/> <p><b>Field Observations:</b></p> <p>           Depth of Surface Water: <u>N/A</u> (in.)<br/>           Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br/>           Depth to Saturated Soil: <u>&gt; 18</u> (in.)         </p> | <p><b>Wetland Hydrology Indicators:</b></p> <p><b>Primary Indicators:</b></p> <p> <input type="checkbox"/> Inundated<br/> <input type="checkbox"/> Saturated in Upper 12 Inches<br/> <input type="checkbox"/> Water Marks<br/> <input type="checkbox"/> Drift Lines<br/> <input type="checkbox"/> Sediment Deposits<br/> <input type="checkbox"/> Drainage Patterns in Wetlands         </p> <p><b>Secondary Indicators (2 or more required):</b></p> <p> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br/> <input type="checkbox"/> Water-Stained Leaves<br/> <input type="checkbox"/> Local Soil Survey Data<br/> <input type="checkbox"/> FAC-Neutral Test<br/> <input type="checkbox"/> Other (Explain in Remarks) _____         </p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Remarks: NO INDICATORS

# SOILS

Map Unit Name (78BX)  
 (Series and Phase): FEENLINE SILT LOAM DTD 4%  
 Taxonomy (Subgroup): MIXED ANDIC EUTROBORNISS  
 Drainage Class: WELL DRAINED  
 Field Observations  
 Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| <u>0-1/2</u>   |         |                              |                               |                           | <u>ORG MAT</u>                        |
| <u>1/2-3</u>   |         | <u>10YR 6/3</u>              |                               |                           | <u>SILT LOAM</u>                      |
| <u>3-18</u>    |         | <u>10YR 6/3</u>              | <u>10YR 6/8</u>               | <u>FEW, FAINT, FINE</u>   | <u>SILT LOAM</u>                      |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: MOTTLES ARE PRESENT BUT MATRIX HAS TOO MUCH COLOR  
NO INDICATORS

## WETLAND DETERMINATION

|                                                        |                                                                 |
|--------------------------------------------------------|-----------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <u>No</u> (Circle) | Is this Sampling Point Within a Wetland? Yes <u>No</u> (Circle) |
| Wetland Hydrology Present? Yes <u>No</u> (Circle)      |                                                                 |
| Hydric Soils Present? Yes <u>No</u> (Circle)           |                                                                 |
| Remarks:                                               |                                                                 |

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                 |                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - WETLAND #9</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                                 | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u>                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                 |                                                                     |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.)               | <table style="width: 100%;"> <tr> <td style="text-align: center;"> <input checked="" type="radio"/> Yes   <input type="radio"/> No<br/> <input type="radio"/> Yes   <input checked="" type="radio"/> No<br/> <input type="radio"/> Yes   <input checked="" type="radio"/> No         </td> <td style="vertical-align: top;">           Community ID: _____<br/>           Transect ID: _____<br/>           Plot ID: <u>WET #9</u> </td> </tr> </table> | <input checked="" type="radio"/> Yes <input type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #9</u> |
| <input checked="" type="radio"/> Yes <input type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No<br><input type="radio"/> Yes <input checked="" type="radio"/> No | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #9</u>                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                 |                                                                     |

| Dominant Plant Species | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>TYPHA LATIFOLIA</u> | <u>H</u>  | <u>OBL</u>  | 9. _____               | _____   | _____     |
| <u>SALIX SP.</u>       | <u>SH</u> | <u>FACW</u> | 10. _____              | _____   | _____     |
|                        |           |             | 11. _____              | _____   | _____     |
|                        |           |             | 12. _____              | _____   | _____     |
|                        |           |             | 13. _____              | _____   | _____     |
|                        |           |             | 14. _____              | _____   | _____     |
|                        |           |             | 15. _____              | _____   | _____     |
|                        |           |             | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: ALMOST 100% TYPHA

| HYDROLOGY                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Observations:<br><br>Depth of Surface Water: <u>2-4</u> (in.)<br>Depth to Free Water in Pit: <u>0</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Remarks: _____                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

# SOILS

Map Unit Name (78BX)  
 (Series and Phase): FEEN LINE SILT LOAM  
 Taxonomy (Subgroup): MIXED ANDIC EUTROBORALFS  
 Drainage Class: WELL DRAINED  
 Field Observations  
 Confirm Mapped Type? ☒ Yes ☐ No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-1            | D       |                              |                               |                           |                                       |
| 1-8            |         | 7.5YR 7/2                    | 10YR 6/8                      | FEW, DIST, SMALL          | ORG MAT<br>SILT LOAM                  |
| 8-10           |         |                              |                               |                           | ORGANIC MATERIAL                      |
| 10-18          |         | 7.5YR 7/1                    | 10YR 6/8                      | F, D, S                   | SILT LOAM                             |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                         |                                                                               |
|---------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                       | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                  | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime          | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input checked="" type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors    | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: MOTTLES DISTINCT  
 HAS VERY SPECIFIC 2" LAYER OF PREVIOUS TYPHA DETRITUS

## WETLAND DETERMINATION

|                                                                                                        |                                                                                                                 |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) | Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) |
| Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No               |                                                                                                                 |
| Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No                    |                                                                                                                 |
| Remarks:<br>CATTAIL MONOCULTURE                                                                        |                                                                                                                 |

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                 |                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - UPLAND #10</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                                | Date: <u>10-13-75</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>  |
| Do Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.)            | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #10</u> |
| Yes <input checked="" type="radio"/> No <input type="radio"/><br>Yes <input checked="" type="radio"/> No <input type="radio"/><br>Yes <input checked="" type="radio"/> No <input type="radio"/> |                                                                      |

**VEGETATION**

| Dominant Plant Species     | Stratum  | Indicator    | Dominant Plant Species | Stratum | Indicator |
|----------------------------|----------|--------------|------------------------|---------|-----------|
| <u>TRIFOLIUM REPENS</u>    | <u>H</u> | <u>FACU+</u> | 9. _____               |         |           |
| <u>MEDICAGO SATIVA</u>     | <u>H</u> | <u>NI</u>    | 10. _____              |         |           |
| <u>PHLEUM PRATENSE</u>     | <u>H</u> | <u>FACU</u>  | 11. _____              |         |           |
| <u>BROMUS INERMIS</u>      | <u>H</u> | <u>NI</u>    | 12. _____              |         |           |
| <u>ERIGLOSETUM ARVENSE</u> | <u>H</u> | <u>FAC</u>   | 13. _____              |         |           |
|                            |          |              | 14. _____              |         |           |
|                            |          |              | 15. _____              |         |           |
|                            |          |              | 16. _____              |         |           |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: DISTURBED REVEGETATED ROADFILL

**HYDROLOGY**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 19</u> (in.)<br>Depth to Saturated Soil: <u>218</u> (in.)                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Remarks: NO INDICATORS

# SOILS

Map Unit Name (B110X)  
 (Series and Phase): NOXON-FERNLINE SILT LOAM  
 Taxonomy (Subgroup): MIXED ANDIC PALEECRALES  
MIXED ANDIC EUTROBORALES  
 Drainage Class: WELL DRAINED  
 Field Observations  
 Confirm Mapped Type? Yes ☒ No ☐

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-.5           | 0       |                              |                               |                           |                                       |
| .5-3           |         | 7.5YR 6/2                    |                               |                           | ORGANIC MAT.<br>(STONEY) SILT LOAM    |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: ROAD FILL - UNABLE TO DIG BEYOND 3"  
 1/4 TO 3" COBBLES  
 DISTURBED SOILS NO INDICATORS

## WETLAND DETERMINATION

|                                                    |                                                                        |                                                                                                                 |
|----------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present?                    | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) | Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |
| Wetland Hydrology Present?                         | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |
| Hydric Soils Present?                              | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |
| Remarks: SAMPLE TAKEN ON STEEP ROADFILL SIDE SLOPE |                                                                        |                                                                                                                 |

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                 |                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TRIBUT CK - WETLAND #10</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                               | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>  |
| Do Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.)            | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #10</u> |
| Yes <input checked="" type="radio"/> No <input type="radio"/><br>Yes <input type="radio"/> No <input checked="" type="radio"/><br>Yes <input type="radio"/> No <input checked="" type="radio"/> |                                                                      |

**VEGETATION**

| Dominant Plant Species    | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|---------------------------|----------|-------------|------------------------|---------|-----------|
| <u>ARABIS SP.</u>         | <u>H</u> | <u>FACU</u> | 9. _____               | _____   | _____     |
| <u>TYPHA LATIFOLIA</u>    | <u>H</u> | <u>OBL</u>  | 10. _____              | _____   | _____     |
| <u>CAREX SP</u>           | <u>H</u> | <u>FACW</u> | 11. _____              | _____   | _____     |
| <u>CORNUS STOLONIFERA</u> | <u>S</u> | <u>FACW</u> | 12. _____              | _____   | _____     |
| <u>ALNUS INKANA</u>       | <u>T</u> | <u>FACW</u> | 13. _____              | _____   | _____     |
| _____                     | _____    | _____       | 14. _____              | _____   | _____     |
| _____                     | _____    | _____       | 15. _____              | _____   | _____     |
| _____                     | _____    | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: \_\_\_\_\_

**HYDROLOGY**

|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input checked="" type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>6"</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Remarks: CHANNELIZED DITCH 5' TO 10' WIDE, BOREW DITCH

# SOILS

Map Unit Name (B11DX)  
 (Series and Phase): NOXLIN - FERNLINE SILT LOAM  
 Taxonomy (Subgroup): MIXED ANDIC PALEBODALS  
 Drainage Class: WELL DRAINED  
 Field Observations: Confirm Mapped Type? Yes No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-2            |         |                              |                               |                           | ORG. MAT                              |
| 2-8            |         | 10YR 6/1                     | 10YR 5/6                      | COM. DIST. MED.           | SANDY LOAM                            |
| 8-13           |         | 7.5YR 6/2                    | 7.5YR 4/6                     |                           | SILT LOAM                             |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                                 |                                                                               |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: GRAVELLY SOIL, PARTLY FROM INTRODUCED ROAD FILL

## WETLAND DETERMINATION

|                                                                                                        |          |
|--------------------------------------------------------------------------------------------------------|----------|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) | (Circle) |
| Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No               |          |
| Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No                    |          |
| Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |          |

Remarks: THIS WETLAND BEGINS AS A TYPICAL BORROW DITCH WETLAND THEN AS IT FLOWS DOWN ACROSS THE TOPOGRAPHY IT WIDENS INTO MORE OF A SHEET FLOW AWAY FROM THE ROAD. FINALLY IT NARROWS INTO A SYSTEM OF SHALLOW VEGETATED CHANNELS FLOWING AWAY FROM ROAD PROBABLY ENDING IN ROCK CREEK, NO OPEN WATER.

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                               |                                                                      |                                                               |                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| Subject/Site: <u>TRAUT CR. - UPLAND #11</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                  | Date: <u>10-13-75</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                               |                                                                      |                                                               |                                                               |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | <table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> <td rowspan="3" style="vertical-align: top;">           Community ID: _____<br/>           Transect ID: _____<br/>           Plot ID: <u>UPL #11</u> </td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table> | Yes <input checked="" type="radio"/> No <input type="radio"/> | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #11</u> | Yes <input type="radio"/> No <input checked="" type="radio"/> | Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Yes <input checked="" type="radio"/> No <input type="radio"/>                                                                                                                     | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #11</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                               |                                                                      |                                                               |                                                               |
| Yes <input type="radio"/> No <input checked="" type="radio"/>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                               |                                                                      |                                                               |                                                               |
| Yes <input type="radio"/> No <input checked="" type="radio"/>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                               |                                                                      |                                                               |                                                               |

| Dominant Plant Species   | Stratum  | Indicator    | Dominant Plant Species | Stratum | Indicator |
|--------------------------|----------|--------------|------------------------|---------|-----------|
| <u>TRIFOLIUM REPENS</u>  | <u>H</u> | <u>FACU+</u> | 9. _____               |         |           |
| <u>BROMUS INERMIS</u>    | <u>H</u> | <u>UPL</u>   | 10. _____              |         |           |
| <u>EQUISETUM ARVENSE</u> | <u>H</u> | <u>FAC</u>   | 11. _____              |         |           |
| <u>MEDICAGO SATIVA</u>   | <u>H</u> | <u>NI</u>    | 12. _____              |         |           |
|                          |          |              | 13. _____              |         |           |
|                          |          |              | 14. _____              |         |           |
|                          |          |              | 15. _____              |         |           |
|                          |          |              | 16. _____              |         |           |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: DISTURBED REVEGETATED ROADWAY

|                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HYDROLOGY</b><br><br>Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br>No Recorded Data Available<br><br>Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt;18</u> (in.)<br>Depth to Saturated Soil: <u>&gt;18</u> (in.) | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Remarks: NO INDICATORS

# SOILS

Map Unit Name: (BBEX) 8-45% SLOPE  
 (Series and Phase): DENBORRY GRAVELLY SILT LOAM Drainage Class: EXCESSIVELY DR  
 Taxonomy (Subgroup): FRIGID TYPIC UDIVITRANDS Field Observations: Confirm Mapped Type? Yes (No)

**Profile Description:**

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| <u>0-1/2</u>   |         |                              |                               |                           |                                       |
| <u>1/2-10</u>  |         | <u>10YR 4/4</u>              |                               |                           | <u>ORG. MAT</u><br><u>SANDY LOAM</u>  |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

**Hydric Soil Indicators:**

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: 5/4" TO 4" COBBLES  
VERY DIFFICULT DIGGING

## WETLAND DETERMINATION

|                                 |                                                                        |                                                                                                                 |
|---------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) | Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |
| Wetland Hydrology Present?      | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |
| Hydric Soils Present?           | Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |                                                                                                                 |

Remarks: REVEGETATED ROADFILL SIDE SLOPE

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - WETLAND #11</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                                                                                                                                                                                                                                                                                                                                       | Date: <u>10-13-75</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>  |
| Do Normal Circumstances exist on the site? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the site significantly disturbed (Atypical Situation)? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>Is the area a potential Problem Area? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #11</u> |

**VEGETATION**

| Dominant Plant Species      | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>CORNUS STOLONIFERA</u>   | <u>SH</u> | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>POPULUS TRICHOCARPA</u>  | <u>T</u>  | <u>FAC</u>  | 10. _____              | _____   | _____     |
| <u>CAREX SP.</u>            | <u>H</u>  | <u>FACW</u> | 11. _____              | _____   | _____     |
| <u>SYMPHORICARPUS ALBUS</u> | <u>SH</u> | <u>FACU</u> | 12. _____              | _____   | _____     |
| <u>ALNUS INCANA</u>         | <u>T</u>  | <u>FACW</u> | 13. _____              | _____   | _____     |
| _____                       | _____     | _____       | 14. _____              | _____   | _____     |
| _____                       | _____     | _____       | 15. _____              | _____   | _____     |
| _____                       | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: 3-4" CALIPER POPULUS

**HYDROLOGY**

|                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>1-2"</u> (in.)<br>Depth to Free Water in Pit: <u>0</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Remarks: THICK SATURATED LEAF LITTER  
PERM. SATURATED

# SOILS

|                                                                         |  |                                                          |  |
|-------------------------------------------------------------------------|--|----------------------------------------------------------|--|
| Map Unit Name<br>(Series and Phase): <u>DEWBERRY GRAVELLY SILT LOAM</u> |  | Drainage Class: <u>EXCESSIVELY DRAINAGE</u>              |  |
| Taxonomy (Subgroup):                                                    |  | Field Observations<br>Confirm Mapped Type? <u>Yes</u> No |  |

| Profile Description: |         |                                 |                                  |                              |                                          |
|----------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| Depth<br>(inches)    | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
| 0-1                  |         |                                 |                                  |                              | ORG MAT                                  |
| 1-5                  |         | 10YR 5/2                        |                                  |                              | SANDY                                    |
| 5-13                 |         | 10YR 4/2                        | 10YR 4/6                         | FEW FAINT FINE               | SANDY SILT LOAM                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |
|                      |         |                                 |                                  |                              |                                          |

| Hydric Soil Indicators:                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input checked="" type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |

Remarks: BLACK ORGANICS  
THICK DETRITAL LEAF LITTER  
GRAVELLY

## WETLAND DETERMINATION

|                                                                                                                                           |                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Hydrophytic Vegetation Present? <u>Yes</u> No (Circle)<br>Wetland Hydrology Present? <u>Yes</u> No<br>Hydric Soils Present? <u>Yes</u> No | Is this Sampling Point Within a Wetland? <u>Yes</u> No (Circle) |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|

Remarks: THIS WETLAND MIRRORS WETLAND #10 ON THE WEST SIDE OF ROAD. VEGETATION IS NOT HERBACEOUS AS IN WETLAND #10  
HYDROLOGY FLOWS AWAY FROM ROAD INTO ROCK CREEK.

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TRAIT CR. - UPLAND #12</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                                                                                                                                                                                                                                                                                                                                    | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>  |
| Normal Circumstances exist on the site? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the site significantly disturbed (Atypical Situation)? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the area a potential Problem Area? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #12</u> |

ETATION

| Dominant Plant Species      | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|----------|-------------|------------------------|---------|-----------|
| <u>PHALARIS ARUNDINACEA</u> | <u>H</u> | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>MELOTUS ALBA</u>         | <u>H</u> | <u>FACU</u> | 10. _____              | _____   | _____     |
| <u>MELOTUS OFFICINALIS</u>  | <u>H</u> | <u>FACU</u> | 11. _____              | _____   | _____     |
| <u>MEDICAGO SATIVA</u>      | <u>H</u> | <u>NI</u>   | 12. _____              | _____   | _____     |
| <u>FESTUCA OCCIDENTALIS</u> | <u>H</u> | <u>FACU</u> | 13. _____              | _____   | _____     |
| _____                       | _____    | _____       | 14. _____              | _____   | _____     |
| _____                       | _____    | _____       | 15. _____              | _____   | _____     |
| _____                       | _____    | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

< 50%

Remarks: JUNKIE ROADSIDE VEGETATION

ROLOGY

|                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br>No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 13</u> (in.)<br>Depth to Saturated Soil: <u>&gt; 13</u> (in.)                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Remarks: NO INDICATORS, 3-4' ABOVE ADJACENT CHANNEL BOTTOM WATER TABLE

## SOILS

Map Unit Name: (86CX)  
(Series and Phase): DEWBERRY SILT LOAM 2-8% SLOPES  
Taxonomy (Subgroup): FRAID TYPIC UDITRANDS  
Drainage Class: EXCESSIVELY DR  
Field Observations  
Confirm Mapped Type? Yes No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-3            | D       |                              |                               |                           |                                       |
| 3-19           |         | 10YR 3/3                     |                               |                           | ORG. MAT<br>SILT LOAM                 |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: 1/4" TO 3" COBBLES  
SIMILAR THROUGHOUT PROFILE  
UPLAND SAMPLE NOT TAKEN ON  
ROADFILL SIDE OF WETLAND

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                           |                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No (Circle)<br>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No (Circle)<br>Hydric Soils Present? Yes <input checked="" type="radio"/> No (Circle) | Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No (Circle) |
| Remarks: STEEP, GRAVELLY HILLSIDE ROADCUT SLOPE                                                                                                                                                                                           |                                                                                           |

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - WETLAND #12</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KERNE</u>                                                                                                                                                                                                                                                                                                                                                                                    | Date: <u>10-13-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>  |
| Normal Circumstances exist on the site? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the site significantly disturbed (Atypical Situation)? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the area a potential Problem Area? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #12</u> |

**VEGETATION**

| Dominant Plant Species      | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|----------|-------------|------------------------|---------|-----------|
| <u>TYPHA LATIFOLIA</u>      | <u>H</u> | <u>OBL</u>  | 9. _____               | _____   | _____     |
| <u>EQUISETUM ARVENSE</u>    | <u>H</u> | <u>FAC</u>  | 10. _____              | _____   | _____     |
| <u>CAREX SP.</u>            | <u>H</u> | <u>FACW</u> | 11. _____              | _____   | _____     |
| <u>EQUISETUM SCIRPOIDES</u> | <u>H</u> | <u>FAC</u>  | 12. _____              | _____   | _____     |
| <u>AGROSTIS ALBA</u>        | <u>H</u> | <u>FACW</u> | 13. _____              | _____   | _____     |
| <u>LYCOPodium CLAVATUM</u>  | <u>H</u> | <u>FAC</u>  | 14. _____              | _____   | _____     |
|                             |          |             | 15. _____              | _____   | _____     |
|                             |          |             | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: NARROW ROADSIDE BORROW DITCH, DIST. VEGETATION

**HYDROLOGY**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>1"</u> (in.)<br>Depth to Free Water in Pit: <u>0</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

Remarks: PERM OR SEMI - PERM INUNEDATED DRAINAGE CHANNEL

# SOILS

Map Unit Name (88LX)  
(Series and Phase): DENBERRY SILT LOAM 2-B 90  
Taxonomy (Subgroup): FRIGID TYPE UDIVITRANDS  
Drainage Class: EXCESSIVELY DRAINAGE  
Field Observations  
Confirm Mapped Type? Yes No

Profile Description:

| Depth (inches) | Horizon  | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|----------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| <u>0-1</u>     | <u>D</u> |                              |                               |                           | <u>ORG. MAT</u>                       |
| <u>1-19</u>    |          | <u>10YR 4/2</u>              |                               |                           | <u>SANDY LOAM *</u>                   |
|                |          |                              |                               |                           |                                       |
|                |          |                              |                               |                           |                                       |
|                |          |                              |                               |                           |                                       |
|                |          |                              |                               |                           |                                       |
|                |          |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                                 |                                                                                          |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input checked="" type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input type="checkbox"/> Organic Streaking in Sandy Soils                                |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                               |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                            |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                                      |

Remarks: COBBLES / ROAD FILL NO MOTTLES  
VERY SANDY, ALMOST PURE SAND  
COLOR MAY NOT BE RELIABLE DUE TO SAND CONTENT

## WETLAND DETERMINATION

|                                                        |                                                                 |
|--------------------------------------------------------|-----------------------------------------------------------------|
| Hydrophytic Vegetation Present? <u>Yes</u> No (Circle) | Is this Sampling Point Within a Wetland? <u>Yes</u> No (Circle) |
| Wetland Hydrology Present? <u>Yes</u> No               |                                                                 |
| Hydric Soils Present? <u>Yes</u> No                    |                                                                 |
| Remarks:<br><u>MAN-INDUCED BORROW DITCH WETLAND</u>    |                                                                 |

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                      |                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - UPLAND #13</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                     | Date: <u>10-14-95</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>                                                                                                                             |
| Do Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Yes <input checked="" type="radio"/> No <input type="radio"/><br>Yes <input checked="" type="radio"/> No <input type="radio"/><br>Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #13</u>                                                                                                                 |                                                                                                                                                                                                 |

**VEGETATION**

| Dominant Plant Species        | Stratum  | Indicator    | Dominant Plant Species | Stratum | Indicator |
|-------------------------------|----------|--------------|------------------------|---------|-----------|
| <u>CENTAUREA MACULOSA</u>     | <u>H</u> | <u>UPL</u>   | 9. _____               | _____   | _____     |
| <u>AGROPYRON DASYSTACHYUM</u> | <u>H</u> | <u>FACU-</u> | 10. _____              | _____   | _____     |
| <u>MERCURIA SATIVA</u>        | <u>H</u> | <u>NI</u>    | 11. _____              | _____   | _____     |
| <u>ACHILLEA MILLEFOLIUM</u>   | <u>H</u> | <u>FACU</u>  | 12. _____              | _____   | _____     |
| <u>VERBASCUM THAPSUS</u>      | <u>H</u> | <u>UPL</u>   | 13. _____              | _____   | _____     |
|                               |          |              | 14. _____              | _____   | _____     |
|                               |          |              | 15. _____              | _____   | _____     |
|                               |          |              | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC excluding FAC-: < 50%

Remarks: VERY DISTURBED AREA

**HYDROLOGY**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Date (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input checked="" type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br><input type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt;18</u> (in.)<br>Depth to Saturated Soil: <u>&gt;18</u> (in.)                                                                          | Remarks: <u>NO INDICATORS</u><br><u>15'-20' ABOVE ADJACENT SATURATED SOILS, WATER TABLE</u><br><u>VERY STEEP ROAD SIDE SLOPE 1:1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

# SOILS

Map Unit Name (FILEX)  
 (Series and Phase): REDUCK-FAIRLINE SILT LOAM 15-35% Drainage Class: WELL DRAINED  
 Taxonomy (Subgroup): MIXED ANDIC EUTROBORALS Field Observations Confirm Mapped Type? Yes ☒ No ☐

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-3            |         | 10YR 5/3                     |                               |                           | GRAVEL/LOAM                           |
| 3-12           |         | 10YR 3/2                     |                               |                           | GRAVEL                                |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: ROAD FILL - COULD NOT DIG BEYOND 12"  
 1/4" TO 1" GRAVEL

## WETLAND DETERMINATION

|                                                                                                        |                                                                                                                 |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) | Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle) |
| Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)      |                                                                                                                 |
| Hydric Soils Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)           |                                                                                                                 |
| Remarks:<br>LOCATION 7'-15' ABOVE WETLAND, 1:1 ROCK RIPRAP SLOPE                                       |                                                                                                                 |

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project/Site: <u>TRUIT CR - WETLAND #3</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                | Date: <u>10-14-15</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>                                                                                                                                                                                                                                                                                                                              |
| Do Normal Circumstances exist on the site?<br>the site significantly disturbed (Atypical Situation)?<br>the area a potential Problem Area?<br>(If needed, explain on reverse.) | <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="radio"/> Yes<br/> <input type="radio"/> Yes<br/> <input type="radio"/> Yes         </div> <div> <input type="radio"/> No<br/> <input checked="" type="radio"/> No<br/> <input checked="" type="radio"/> No         </div> </div> Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #13</u> |

### VEGETATION

| Dominant Plant Species      | Stratum   | Indicator    | Dominant Plant Species | Stratum | Indicator |
|-----------------------------|-----------|--------------|------------------------|---------|-----------|
| <u>CAREX SP. (ROSTRATA)</u> | <u>H</u>  | <u>OBL</u>   | 9. _____               | _____   | _____     |
| <u>SALIX EXIGUA</u>         | <u>SH</u> | <u>OBL</u>   | 10. _____              | _____   | _____     |
| <u>PHALARIS ARUNDINACEA</u> | <u>M</u>  | <u>FACW</u>  | 11. _____              | _____   | _____     |
| <u>SALIX LASIANDRA (?)</u>  | <u>SH</u> | <u>FACW+</u> | 12. _____              | _____   | _____     |
| _____                       | _____     | _____        | 13. _____              | _____   | _____     |
| _____                       | _____     | _____        | 14. _____              | _____   | _____     |
| _____                       | _____     | _____        | 15. _____              | _____   | _____     |
| _____                       | _____     | _____        | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): >50%

Remarks: 100% FACW+ OR WETTER

### HYDROLOGY

|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input checked="" type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br><b>Primary Indicators:</b><br><input checked="" type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Date<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| Field Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt;18*</u> (in.)<br>Depth to Saturated Soil: <u>0</u> (in.)                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Remarks: \*FREE WATER WOULD PERCOLATE INTO PIT OVER TIME

# SOILS

Map Unit Name

(791EX)

(Series and Phase): REDLOCK - FINE SILT LOAM

Taxonomy (Subgroup): MIXED AND EUTROBORALFS

Drainage Class: WELL DRAINED

Field Observations

Confirm Mapped Type? Yes No

## Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-1/2          |         |                              |                               |                           |                                       |
| 1/2-4          |         | 10YR 4/2                     |                               |                           | ORG MAT                               |
| 4-8            |         | 10YR 5/2                     |                               |                           | SANDY SILT LOAM                       |
| 8-13           |         | 10YR 6/1                     | 10YR 4/6                      | 10% DIST. FRED            | SANDY SILT LOAM                       |
|                |         |                              |                               |                           | SILT LOAM                             |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

## Hydric Soil Indicators:

- |                                                                 |                                                                               |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input checked="" type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                    |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: VERY NICE WETLAND PROFILE

## WETLAND DETERMINATION

Hydrophytic Vegetation Present?

Yes No (Circle)

Wetland Hydrology Present?

Yes No

Hydric Soils Present?

Yes No

(Circle)

Is this Sampling Point Within a Wetland? Yes No

Remarks: TERRACED WETLAND ARE AT LAKE EDGE  
10-20" ABOVE ORDINARY HIGH WATER MARK WITH HUMMOCKY  
MIXED RELIEF  
TYPICAL AREA OF LAKE EDGE WETLANDS, EDGE VARIES FROM  
ROCKY COASTLINE TO SANDPARKS SUCH AS THIS

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - UPLAND #14</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                   | Date: <u>10-14-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u>                                                                                                                                                                                                    |
| Normal Circumstances exist on the site?<br>Is the site significantly disturbed (Atypical Situation)?<br>Is the area a potential Problem Area?<br>(If needed, explain on reverse.) | Yes <input checked="" type="radio"/> No <input type="radio"/><br>Yes <input type="radio"/> No <input checked="" type="radio"/><br>Yes <input type="radio"/> No <input checked="" type="radio"/><br>Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #14</u> |

| Dominant Plant Species     | Stratum  | Indicator    | Dominant Plant Species | Stratum | Indicator |
|----------------------------|----------|--------------|------------------------|---------|-----------|
| <u>PERIDUM-AQUILUM</u>     | <u>H</u> | <u>FACU</u>  | 9. _____               | _____   | _____     |
| <u>ALOSTAPHYLUS WA-UBI</u> | <u>H</u> | <u>FACU-</u> | 10. _____              | _____   | _____     |
| _____                      | _____    | _____        | 11. _____              | _____   | _____     |
| _____                      | _____    | _____        | 12. _____              | _____   | _____     |
| _____                      | _____    | _____        | 13. _____              | _____   | _____     |
| _____                      | _____    | _____        | 14. _____              | _____   | _____     |
| _____                      | _____    | _____        | 15. _____              | _____   | _____     |
| _____                      | _____    | _____        | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): < 50%

Remarks: ALMOST SOLID KINNICKINNICK AND BRACKEN FERN

| HYDROLOGY                                                                                                                                                                                                   | Wetland Hydrology Indicators:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other<br>No Recorded Data Available | Primary Indicators:<br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br>Secondary Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>713</u> (in.)<br>Depth to Saturated Soil: <u>713</u> (in.)                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Remarks: <u>1/2 6' ABOVE LAKE LEVEL ON TERRACE</u><br><u>NO INDICATORS</u>                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

# SOILS

|                                                             |  |                                        |                    |
|-------------------------------------------------------------|--|----------------------------------------|--------------------|
| Map Unit Name: <u>(LSAX)</u>                                |  | OCCASIONALLY FLOODED                   |                    |
| (Series and Phase): <u>LARCHPOINT SILT LOAM 0-2% SLOPES</u> |  | Drainage Class: <u>POORLY DRAINAGE</u> | Field Observations |
| Taxonomy (Subgroup): <u>FRIGID TYPIC ENDORHEIC</u>          |  | Confirm Mapped Type? <u>(Yes)</u> No   |                    |

| Profile Description: |         |                              |                               |                           |                                       |
|----------------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| Depth (inches)       | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
| 0-1                  |         |                              |                               |                           | ORG MNT                               |
| 1-10                 |         | 10YR 4/3                     |                               |                           | SANDY LOAM                            |
| 10-18                |         | 10YR 5/4                     |                               |                           | SAND *                                |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |
|                      |         |                              |                               |                           |                                       |

|                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydric Soil Indicators:                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                          |
| <input type="checkbox"/> Histosol<br><input type="checkbox"/> Histic Epipedon<br><input type="checkbox"/> Sulfidic Odor<br><input type="checkbox"/> Aquic Moisture Regime<br><input type="checkbox"/> Reducing Conditions<br><input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Concretions<br><input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils<br><input type="checkbox"/> Organic Streaking in Sandy Soils<br><input type="checkbox"/> Listed on Local Hydric Soils List<br><input type="checkbox"/> Listed on National Hydric Soils List<br><input type="checkbox"/> Other (Explain in Remarks) |

Remarks: \* ALMOST 100% SAND  
NO INDICATORS

## WETLAND DETERMINATION

|                                                                                                                                                                   |                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <u>(No)</u> (Circle)<br>Wetland Hydrology Present? Yes <u>(No)</u> (Circle)<br>Hydric Soils Present? Yes <u>(No)</u> (Circle) | (Circle)<br>Is this Sampling Point Within a Wetland? Yes <u>(No)</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|

Remarks: MULTIPLE TERRACES/ SLOPES ALONG EDGE OF NOXON LAKE  
UPLAND TERRACE AT THIS SAMPLE LOCATION IS 5-7' ABOVE  
ADJACENT COBBLE ORDINARY HIGH WATER MARK

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TRUST CR. WETLAND #14</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                                                                                                                                                                                                                                                                                                                             | Date: <u>10-14-95</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site? <span style="margin-left: 20px;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is site significantly disturbed (Atypical Situation)? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>Is area a potential Problem Area? <span style="margin-left: 20px;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #14</u> |

**VEGETATION**

| Dominant Plant Species   | Stratum   | Indicator   | Dominant Plant Species | Stratum | Indicator |
|--------------------------|-----------|-------------|------------------------|---------|-----------|
| <u>ALNUS INCANA</u>      | <u>T</u>  | <u>FACW</u> | 9. _____               | _____   | _____     |
| <u>RUSETUM HYMENALE</u>  | <u>H</u>  | <u>FACW</u> | 10. _____              | _____   | _____     |
| _____                    | _____     | _____       | 11. _____              | _____   | _____     |
| <u>ALNUS STOLONIFERA</u> | <u>SH</u> | <u>FACW</u> | 12. _____              | _____   | _____     |
| <u>ERIDIUM AQUILUM</u>   | <u>H</u>  | <u>FACU</u> | 13. _____              | _____   | _____     |
| _____                    | _____     | _____       | 14. _____              | _____   | _____     |
| _____                    | _____     | _____       | 15. _____              | _____   | _____     |
| _____                    | _____     | _____       | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (including FAC-): > 50%

Remarks: THICK ALNUS FORESTED AREA ALNUS CALIPER 2-6"

**HYDROLOGY**

|                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br>No Recorded Data Available | <b>Wetland Hydrology Indicators:</b><br><b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input checked="" type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input checked="" type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) _____ |
| <b>Observations:</b><br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>10</u> (in.)                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Remarks: 1/2' ABOVE HIGH WATER MARK FOR LAKE  
TERRACE SLOPES GRADUALLY TO SOUTH, AT THIS SAMPLE LOCATION IT HAS GONE  
FROM 1/2-6' ABOVE DHWM TO 1/2-1'. ALSO HAS DRAINAGE PATTERN'S, MICRO RELIEF

# SOILS

Map Unit Name (65AX)  
 (Series and Phase): LARCHPOINT SILT LOAM 0-2% SLAPS  
 Drainage Class: POORLY DRAINET  
 Taxonomy (Subgroup): ERIGID TYPIC ENDRAQUENTS  
 Field Observations  
 Confirm Mapped Type? ☒ Yes ☐ No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/Contrast | Texture, Concretions, Structure, etc. |
|----------------|---------|------------------------------|-------------------------------|---------------------------|---------------------------------------|
| 0-3            |         | 10YR 3/1                     |                               |                           | LOAM                                  |
| 3-8            |         | 10YR 4/2                     |                               |                           | SANDY LOAM                            |
| 8-18           |         | 2.5YR 5/2                    | 10 YR 4/1                     | DIST. LARGE UM.           | SANDY SILT LOAM                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |
|                |         |                              |                               |                           |                                       |

Hydric Soil Indicators:

|                                                                 |                                                                                          |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                                     |
| <input type="checkbox"/> Histic Epipedon                        | <input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input checked="" type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input type="checkbox"/> Listed on Local Hydric Soils List                               |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                            |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                                      |

Remarks: ELK STREAKING (2.5Y 2/0)

## WETLAND DETERMINATION

|                                                                                                        |          |
|--------------------------------------------------------------------------------------------------------|----------|
| Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) | (Circle) |
| Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No               |          |
| Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No                    |          |
| Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |          |

Remarks: GRADUAL TRANSITION FROM UPLAND #14 TO WETLAND #14  
 BREAK OR CHANGE IN VEGETATION TO ALDER CANOPY IS MOST DISTINCT CRITERIA

Approved by HQUSACE 3/92

DATA FORM  
ROUTINE WETLAND DETERMINATION  
(1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROUT CR - UPLAND #15</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND / KEENE</u>                                                                                                                                                                                                                                                                                                                                                                       | Date: <u>10-14-75</u><br>County: <u>SANDERS</u><br>State: <u>MT</u>  |
| Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span><br>Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span><br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>UPL #15</u> |

VEGETATION

| Dominant Plant Species            | Stratum   | Indicator     | Dominant Plant Species | Stratum | Indicator |
|-----------------------------------|-----------|---------------|------------------------|---------|-----------|
| 1. <u>PERISTAPHYLLOS UVA-URSI</u> | <u>H</u>  | <u>FACU -</u> | 9. _____               | _____   | _____     |
| 2. <u>PINUS PONDEROSA</u>         | <u>T*</u> | <u>FACU -</u> | 10. _____              | _____   | _____     |
| 3. <u>PERIDUM AQUILUM</u>         | <u>H</u>  | <u>FACU</u>   | 11. _____              | _____   | _____     |
| 4. <u>CRATAEGUS SP</u>            | <u>SH</u> | <u>FACU</u>   | 12. _____              | _____   | _____     |
| 5. <u>ROSA WOODSII</u>            | <u>SH</u> | <u>FACU</u>   | 13. _____              | _____   | _____     |
| 6. <u>ANTHAUREA MAULOSA</u>       | <u>H</u>  | <u>FACU</u>   | 14. _____              | _____   | _____     |
| 7. _____                          | _____     | _____         | 15. _____              | _____   | _____     |
| 8. _____                          | _____     | _____         | 16. _____              | _____   | _____     |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). < 50%

Remarks: \* PONDEROSA RANGE FROM SAPPING TO 30'  
ROSA IS MINOR COMPONENT

HYDROLOGY

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input type="checkbox"/> Aerial Photographs<br><input checked="" type="checkbox"/> Other<br><input type="checkbox"/> No Recorded Data Available | Wetland Hydrology Indicators:<br>Primary Indicators:<br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns in Wetlands<br>Secondary Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Field Observations:<br><br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>213</u> (in.)<br>Depth to Saturated Soil: <u>213</u> (in.)                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Remarks: DISTINCT TERRACE 4-6' ABOVE WETLAND LEVEL (5-6' ABOVE WATER LEVEL)  
NO INDICATORS

## SOILS

Map Unit Name (65AX)  
(Series and Phase): LARCHMONT SILT LOAM 0-2% SLOPES Drainage Class: POORLY DRAINED  
Taxonomy (Subgroup): FRAIGID TYPIC ENDORAQUEUS Field Observations  
Confirm Mapped Type? Yes No

Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| 0-1               | O       |                                 |                                  |                              |                                          |
| 1-5               |         | 10YR 4/4                        |                                  |                              | ORGANIC MAT.                             |
| 5-18              |         | 10YR 5/6                        |                                  |                              | SANDY LOAM                               |
|                   |         |                                 |                                  |                              | LOAMY SAND                               |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

Hydric Soil Indicators:

|                                                      |                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                    | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime       | <input checked="" type="checkbox"/> Listed on Local Hydric Soils List         |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: FAIRLY SANDY SOIL,

## WETLAND DETERMINATION

|                                                                                                                                                                                                                                                                                           |  |                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)<br>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/><br>Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No |  | Is this Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> (Circle) |
| Remarks: DISTINCT TERRACE RISES OUT OF WETLAND ALONG ROAD EDGE                                                                                                                                                                                                                            |  |                                                                                                                 |

Approved by HQUSACE 3/92

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
 (1987 COE Wetlands Delineation Manual)

|                                                                                                                                                                                                                                                                                                                                                                           |                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Project/Site: <u>TROUT CR. - WETLAND #15</u><br>Applicant/Owner: <u>MDT</u><br>Investigator: <u>REDMOND/KEENE</u>                                                                                                                                                                                                                                                         | Date: <u>10-14-75</u><br>County: <u>SANDERS</u><br>State: <u>MT.</u> |
| Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No<br>Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No<br>Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No<br>If needed, explain on reverse. | Community ID: _____<br>Transect ID: _____<br>Plot ID: <u>WET #15</u> |

| Dominant Plant Species     | Stratum  | Indicator   | Dominant Plant Species | Stratum | Indicator |
|----------------------------|----------|-------------|------------------------|---------|-----------|
| <u>ALNUS INCANA</u>        | <u>T</u> | <u>FACW</u> | 9. _____               |         |           |
| <u>POPULUS TRICHOCARPA</u> | <u>T</u> | <u>FAC</u>  | 10. _____              |         |           |
| <u>PERIDIUM AQUILUM</u>    | <u>H</u> | <u>FACU</u> | 11. _____              |         |           |
| <u>QUISETUM ARVENSE</u>    | <u>H</u> | <u>FAC</u>  | 12. _____              |         |           |
| _____                      |          |             | 13. _____              |         |           |
| _____                      |          |             | 14. _____              |         |           |
| _____                      |          |             | 15. _____              |         |           |
| _____                      |          |             | 16. _____              |         |           |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): > 50%

Remarks: 1" TO 2" CALIPER ALNUS  
0" TO 8" CALIPER POPULUS

| BIOLOGY                                                                                                                                                                                                                                               | Wetland Hydrology Indicators:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorded Data (Describe in Remarks):<br><input type="checkbox"/> Stream, Lake, or Tide Gauge<br><input checked="" type="checkbox"/> Aerial Photographs<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> No Recorded Data Available | <b>Primary Indicators:</b><br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in Upper 12 Inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Unes<br><input type="checkbox"/> Sediment Deposits<br><input checked="" type="checkbox"/> Drainage Patterns in Wetlands<br><b>Secondary Indicators (2 or more required):</b><br><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches<br><input checked="" type="checkbox"/> Water-Stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other (Explain in Remarks) |
| Observations:<br>Depth of Surface Water: <u>N/A</u> (in.)<br>Depth to Free Water in Pit: <u>&gt; 18</u> (in.)<br>Depth to Saturated Soil: <u>&gt; 18</u> (in.)                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Remarks: <u>FORESTED WETLAND EDGE, SOIL IS MOIST THROUGHOUT BUT NOT SATURATED. AREA IS PROBABLY SATURATED THROUGHOUT GROWING SEASON</u>                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

Map Unit Name (65AX)  
(Series and Phase): LARCH POINT SILT LOAM 0-2 %  
Taxonomy (Subgroup): FRAGID TYPIC ENDORAQUENTS  
Drainage Class: POORLY DRAINED  
Field Observations  
Confirm Mapped Type? Yes No

Profile Description:

| Depth<br>(inches) | Horizon | Matrix Color<br>(Munsell Moist) | Mottle Colors<br>(Munsell Moist) | Mottle<br>Abundance/Contrast | Texture, Concretions,<br>Structure, etc. |
|-------------------|---------|---------------------------------|----------------------------------|------------------------------|------------------------------------------|
| 0-3               |         | 10YR 4/2                        |                                  |                              | LOAM                                     |
| 3-10              |         | 10YR 5/2                        |                                  |                              | SANDY LOAM                               |
| 10-13             |         | 10YR 5/2                        | 10YR 5/8                         | FINE FFW. FINE               | SILT LOAM                                |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |
|                   |         |                                 |                                  |                              |                                          |

Hydric Soil Indicators:

|                                                                 |                                                                               |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol                               | <input type="checkbox"/> Concretions                                          |
| <input type="checkbox"/> Histic Epipedon                        | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor                          | <input type="checkbox"/> Organic Streaking in Sandy Soils                     |
| <input type="checkbox"/> Aquic Moisture Regime                  | <input checked="" type="checkbox"/> Listed on Local Hydric Soils List         |
| <input type="checkbox"/> Reducing Conditions                    | <input type="checkbox"/> Listed on National Hydric Soils List                 |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                           |

Remarks: DENSE LEAF LITTER, WATER STAINED LEAVES

## WETLAND DETERMINATION

|                                                                                                            |                                      |             |                                                                                                        |
|------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|--------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present?                                                                            | <input checked="" type="radio"/> Yes | No (Circle) | Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Wetland Hydrology Present?                                                                                 | <input checked="" type="radio"/> Yes | No          |                                                                                                        |
| Hydric Soils Present?                                                                                      | <input checked="" type="radio"/> Yes | No          |                                                                                                        |
| Remarks: JUST BEYOND SAMPLING POINT (6-10') TREE CANOPY ENDS AND OBL. SUCH AS CAREX, SCIRPUS ARE DOMINANT. |                                      |             |                                                                                                        |

Approved by HQUSACE 3/92

Site: W. OF TROUT CREEK Number: STPP 6-1 (59) 15 C# 2133  
 Date: 10-14-75 Evaluator(s): REDMOND/KEENE Site Name(s): NOYON LAKE (SWAMP CREEK INLET)  
 Location: MT 200 NORTH OF TROUT CREEK MT.  
 Total Wetland Size: > 10 ACRES Estimated Size Within Proposed ROW: \_\_\_\_\_  
 Date of Evaluation: OVERLAST

| Wetland Classification (from MDT Wetland Classification Scheme) |                            |                  |                                                 |              |
|-----------------------------------------------------------------|----------------------------|------------------|-------------------------------------------------|--------------|
| Time (e.g.,<br>dry flooded)                                     | Wetland Type (e.g., Marsh) | Dominant Species | Modifier (e.g., Impounded)<br>and/or Descriptor | % of Wetland |
| PERMANENTLY FLOODED                                             | OPEN WATER                 | N/A              |                                                 | 100%         |
|                                                                 |                            |                  |                                                 |              |
|                                                                 |                            |                  |                                                 |              |
|                                                                 |                            |                  |                                                 |              |
|                                                                 |                            |                  |                                                 |              |

Wetland type(s) is (are) locally (circle): Rare Common Abundant  
 Narrative Summary: THIS IS AN OPEN WATER INLET W/ STEEP SIDE SLOPES NO EMERGENT VEGETATION

#### Wetland Values Assessment

1. Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

|       | Score     | Calcul. | Rating   | Point Value |
|-------|-----------|---------|----------|-------------|
| Acres | <u>10</u> | Score = | (circle) | =(circle)   |
| Acres | = 5       | 1 =     | Low      | = 1         |
| Acres | = 3       | 3 =     | Moderate | = 3         |
| Acres | = 1       | 5 =     | High     | = 5         |
|       |           | 10 =    | Except.  | <u>= 10</u> |

2. Diversity (Function of wetland type diversity and presence of open water component.)

| Wetland Types (1 Multiply 1) |            | Score    | Score | Open Water | Calcul. | Rating   | Point Value |
|------------------------------|------------|----------|-------|------------|---------|----------|-------------|
| Including open water types   |            | Score    | Score | Present    | Score = | (circle) | =(circle)   |
| 3 types                      | = 5        | <u>2</u> |       | Present    | 1 =     | Low      | = 1         |
| 2 types                      | = 3        | 1 =      |       | Absent     | 2-3 =   | Moderate | <u>= 3</u>  |
| 1 type                       | <u>= 1</u> |          |       |            | 5-6 =   | High     | = 5         |
|                              |            |          |       |            | 10 =    | Except.  | = 10        |
| Calculated Score =           |            |          |       | <u>2</u>   |         |          |             |

3. Habitat Support (Function of habitat diversity [HD] and wetland size)

| Habitat Support (1 Multiply 1) |            | Score    | Score | Size      | Calcul. | Rating   | Point Value |
|--------------------------------|------------|----------|-------|-----------|---------|----------|-------------|
| 2 above                        |            | Score    | Score |           | Score = | (circle) | =(circle)   |
| 2 above                        | = 1        | <u>5</u> |       | > 5 acres | 1-2 =   | Low      | = 1         |
| 2 above                        | <u>= 2</u> | 3 =      |       | 1-5 acres | 3-9 =   | Moderate | = 3         |
| 2 above                        | = 3        | 1 =      |       | < 1 acre  | 10-15 = | High     | <u>= 5</u>  |
| 2 above                        | = 4        |          |       |           | 20 =    | Except.  | = 10        |
| Calculated Score =             |            |          |       | <u>10</u> |         |          |             |

4. Species (Function of Federally-listed Endangered, Threatened, Proposed, or Candidate (C1 or C2) Species)

| Species (1 Multiply 1)                                |      | Score    | Score | Calcul. | Rating   | Point Value |
|-------------------------------------------------------|------|----------|-------|---------|----------|-------------|
| Receives                                              |      | Score    | Score | Score = | (circle) | =(circle)   |
| use by such species or is designated critical habitat | = 10 | <u>5</u> |       | 0 =     | None     | = 0         |
| use (e.g., infrequent, sporadic use)                  | = 5  | 3 =      |       | 3 =     | Moderate | = 3         |
| use (e.g., chance, inconsequential use)               | = 3  | = 0      |       | 5 =     | High     | <u>= 5</u>  |
| own or suspected use                                  | = 0  |          |       | 10 =    | Except.  | = 10        |

5. Species (Function of Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program (Not including those addressed under #4 above.)

| Species (1 Multiply 1)                                        |      | Score    | Score | Calcul. | Rating   | Point Value |
|---------------------------------------------------------------|------|----------|-------|---------|----------|-------------|
| Provides                                                      |      | Score    | Score | Score = | (circle) | =(circle)   |
| ing or other crucial habitat                                  | = 10 | <u>5</u> |       | 0 =     | None     | = 0         |
| that is used regularly                                        | = 5  | 3 =      |       | 1 =     | Low      | = 1         |
| that is used occasionally (e.g., infrequent, sporadic use)    | = 3  | = 1      |       | 3 =     | Moderate | = 3         |
| that is used incidentally (e.g., chance, inconsequential use) | = 1  | = 0      |       | 5 =     | High     | <u>= 5</u>  |
| own or suspected habitat                                      | = 0  |          |       | 10 =    | Except.  | = 10        |

## 6. General Wildlife or Fish Habitat (Non-T&E)

### Criteria I (apply to each group)

|                            |     |
|----------------------------|-----|
| Minimal or significant use | = 5 |
| Alonal or moderate use     | = M |
| Little or no perceived use | = L |

### Criteria II (apply to entire group)

|                          |                    |
|--------------------------|--------------------|
| ✓ Songbirds              | ≥ 6 S's or ≥ 8 M's |
| ✓ Raptors                | 3-5 S's or 6-7 M's |
| ✓ Waterfowl              | 1-2 S's or 3-5 M's |
| ✓ Marsh & Shorebirds     | No S's and ≤ 2 M's |
| ✓ Rodents & Insectivores |                    |
| ✓ Carnivores             |                    |
| ✓ Ungulates              |                    |
| ✓ Herpetiles             |                    |
| ✓ Fish                   |                    |
| ✓ Invertebrates          |                    |

Calculated Score = 5

### Score

|            |
|------------|
| = 10       |
| <u>= 5</u> |
| = 3        |
| = 1        |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | <u>= 5</u>  |
| 10 =    | Except   | = 10        |

## 7. Flood Control or Storage (Function of floodwater proximity, wetland size, vegetative composition, and flow restriction; Applies only to sites within a discernable floodplain (based on floodwater proximity, flood deposits, FEMA maps, etc.); If does not apply, Point Value is 0.)

(1 Multiply 1)

| Wetland Size | Score    | Score    |
|--------------|----------|----------|
| > 5 acres    | <u>5</u> | 3 =      |
| 1-5 acres    | = 3      | 2 =      |
| < 1 acre     | = 1      | <u>1</u> |

| Vegetative Composition                  |
|-----------------------------------------|
| > 50% forested or shrub or combination  |
| 10-50% forested or shrub or combination |
| < 10% forested or shrub or combination  |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 0 =     | None     | = 0         |
| 2-3 =   | Low      | = 1         |
| 4-8 =   | Moderate | <u>= 3</u>  |
| 10-16 = | High     | = 5         |
| 17 =    | Except   | = 10        |

| Flow Restriction            | Score      |
|-----------------------------|------------|
| Outlet restricted or absent | = 2        |
| Outlet unrestricted         | <u>= 1</u> |

Calculated Score (A + B) = 6

## 8. Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

(1 Multiply 1)

| Wellhood to Receive Sediment/Pollutants     | Score        | Score    |
|---------------------------------------------|--------------|----------|
| Substantial accumulations evident or likely | = 2          | 5 =      |
| Moderate accumulations evident or likely    | = 1          | 3 =      |
| Accumulations not evident and unlikely      | <u>= 0.5</u> | <u>1</u> |

| Emergent Vegetative Components |
|--------------------------------|
| > 50% emergent                 |
| 10-50% emergent                |
| < 10% emergent                 |

Calculated Score = .5

| Calcul.  | Rating   | Point Value |
|----------|----------|-------------|
| Score =  | (circle) | =(circle)   |
| .5-1.5 = | Low      | <u>= 1</u>  |
| 2-3 =    | Moderate | = 3         |
| 5-10 =   | High     | = 5         |

## 9. Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake (subject to wave action), river, stream, or other defined drainage; If does not apply, Point Value is 0.)

| Size of Rooted Vegetative Component | Score      |
|-------------------------------------|------------|
| > 5 acres                           | = 5        |
| 1-5 acres                           | = 3        |
| < 1 acre                            | <u>= 1</u> |

Calculated Score = 1

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 0 =     | None     | = 0         |
| 1 =     | Low      | <u>= 1</u>  |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |

## 10. Nutrient Cycling (Potential to accumulate, process, and export nutrients (expressed as organic matter).)

(1 Multiply 1)

| Organic Matter Accumulation       | Score      | Score    |
|-----------------------------------|------------|----------|
| Substantial accumulation evident  | = 3        | <u>3</u> |
| Little to no accumulation evident | <u>= 1</u> | 1 =      |

| Proximity to Other Aquatic Habitats              |
|--------------------------------------------------|
| Adjacent or contiguous to other aquatic habitats |
| Isolated basin                                   |

Calculated Score = 3

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | <u>= 3</u>  |
| 9 =     | High     | = 5         |

## 11. Groundwater Discharge/Recharge

### Wetland:

A. Is a known discharge or recharge area occurs immediately below a dam

Criteria  
A, B, or C true

Score  
= 5

C. Is a suspected discharge or recharge area due to:

D true, all others false

= 3

D. Has an outlet, but no Inlet

A-D false.

= 1

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | <u>= 5</u>  |

## 12. Uniqueness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

| Frequency of Occurrence in Montana | Score      | Score    |
|------------------------------------|------------|----------|
| Rare                               | = 3        | 5 =      |
| Common                             | = 2        | 3 =      |
| Abundant                           | <u>= 1</u> | <u>1</u> |

| Replacement Potential                            |
|--------------------------------------------------|
| Irreplaceable ecological functions               |
| Ecological functions replaceable with difficulty |
| Ecological functions readily replaceable         |

Calculated Score = 1

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1-2 =   | Low      | <u>= 1</u>  |
| 3-6 =   | Moderate | = 3         |
| 9-10 =  | High     | = 5         |
| 15 =    | Except   | = 10        |

## 13. Recreation/Education Potential (Subjective assessment of potential for boating, hunting, birdwatching, photography, and other recreation/education activities; remember to consider access restrictions.)

(1 Multiply 1)

| Recreation Potential | Score      | Score      | Education Potential |
|----------------------|------------|------------|---------------------|
| High                 | = 3        | 5 =        | High                |
| Moderate             | <u>= 2</u> | 3 =        | Moderate            |
|                      |            | <u>= 1</u> | Low                 |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1-2 =   | Low      | <u>= 1</u>  |
| 3-6 =   | Moderate | = 3         |

## Function &amp; Value Summary and Overall Wetland Rating

for Wetland Site(s): NOXON LAKE INLET (SWAMP CREEK)

| Function & Value Parameters               | Point Values | Ratings  |
|-------------------------------------------|--------------|----------|
| 1. Wetland Size                           | 10           | EXCEPT   |
| 2. Habitat Diversity                      | 3            | MODERATE |
| 3. Food Chain Support                     | 5            | HIGH     |
| 4. T&E/Proposed/Candidate Species Habitat | 5            | HIGH     |
| 5. MNHP Species Habitat                   | 5            | HIGH     |
| 6. General Fish & Wildlife Habitat        | 5            | HIGH     |
| 7. Flood Control & Storage                | 3            | MODERATE |
| 8. Sediment Filtration                    | 1            | LOW      |
| 9. Erosion Control                        | 1            | LOW      |
| 10. Nutrient Cycling                      | 3            | MODERATE |
| 11. Groundwater Discharge/Recharge        | 5            | HIGH     |
| 12. Uniqueness                            | 1            | LOW      |
| 13. Recreation/Education Potential        | 2            | LOW      |
| TOTAL POINT VALUE                         | 46           |          |

Overall Wetland Rating (Circle appropriate category based on the criteria outlined below):

I

II

III

IV

Category I Wetland - Must satisfy one of the following criteria:

- ♦ Total Point Value of 65 or more; or
- ♦ "Exceptional" ratings for T&E/Proposed/Candidate Species Habitat or Flood Control & Storage or Uniqueness.

Category II Wetland - Does not satisfy criteria for Category I and:

- ♦ Total Point Value of 40 - 64; or
- ♦ "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- ♦ "High" ratings for Food Chain Support or Uniqueness.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- ♦ Total Point Value less than 26; and
- ♦ "Low" ratings for Wetland Size and Habitat Diversity.

Project Name: W. OF TROUT CREEK Number: STPP 6-1 (59) 15 C# 2133  
 Evaluation Date: 10-19-95 Evaluator(s): REDMOND/KEENE Site Name(s): MCKAY CREEK  
 Site Location: MT. 200 N. OF TROUT CREEK MT.  
 Estimated Total Wetland Size: > 10 ACRES Estimated Size Within Proposed ROW: \_\_\_\_\_  
 Conditions During Evaluation: OVERCAST / PARTLY CLOUDY

Wetland Classification (from MDT Wetland Classification Scheme)

| Water Regime (e.g., Permanently Flooded) | Wetland Type (e.g., Marsh) | Dominant Species       | Modifier (e.g., Impounded) and/or Descriptor | % of Wetland |
|------------------------------------------|----------------------------|------------------------|----------------------------------------------|--------------|
| <u>SATURATED</u>                         | <u>WETMEADOW</u>           | <u>CAREX, AGROSTIS</u> |                                              | <u>80%</u>   |
| <u>SEASONALLY FLOOD</u>                  | <u>SHRUB</u>               | <u>CORNUS, POPULUS</u> | <u>RIPARIAN</u>                              | <u>20%</u>   |
|                                          |                            |                        |                                              |              |
|                                          |                            |                        |                                              |              |
|                                          |                            |                        |                                              |              |

Wetland Type(s) is (are) locally (circle): Rare Common Abundant

Brief Descriptive Summary: THIS A RIPARIAN SHRUB WETLAND THE BROADENS OUT INTO A FRESHWATER FLOODPLAIN AT THE EDGE OF THE RESERVOIR.

Functions and Values Assessment

1. Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

| Size          | Score      | Calcul. | Rating          | Point Value      |
|---------------|------------|---------|-----------------|------------------|
| > 10 acres    | <u>-10</u> | Score = | <u>(circle)</u> | <u>=(circle)</u> |
| 6 to 10 acres | = 5        | 1 =     | Low             | = 1              |
| 1 to 5 acres  | = 3        | 3 =     | Moderate        | = 3              |
| < 1 acre      | = 1        | 5 =     | High            | = 5              |
|               |            | 10 =    | Except.         | <u>-10</u>       |

2. Habitat Diversity (Function of wetland type diversity and presence of open water component.)

| # of Wetland Types<br>(not including open water types) | (1 Multiply 1) | Score      | Open Water | Calcul. | Rating          | Point Value      |
|--------------------------------------------------------|----------------|------------|------------|---------|-----------------|------------------|
| ≥ 3 types                                              | <u>-5</u>      | 2 =        | Present    | Score = | <u>(circle)</u> | <u>=(circle)</u> |
| 2 types                                                | <u>-3</u>      | <u>1 =</u> | Absent     | 1 =     | Low             | = 1              |
| ≤ 1 type                                               | = 1            |            |            | 2-3 =   | Moderate        | = 3              |
|                                                        |                |            |            | 5-6 =   | High            | <u>-5</u>        |
|                                                        |                |            |            | 10 =    | Except.         | = 10             |

Calculated Score = 5

3. Food Chain Support (Function of habitat diversity [HD] and wetland size)

| HD Rating        | (1 Multiply 1) | Score        | Size      | Calcul. | Rating          | Point Value      |
|------------------|----------------|--------------|-----------|---------|-----------------|------------------|
| <u>1/2 above</u> | <u>Score</u>   | <u>Score</u> |           | Score = | <u>(circle)</u> | <u>=(circle)</u> |
| Low              | = 1            | <u>5 =</u>   | > 5 acres | 1-2 =   | Low             | = 1              |
| Moderate         | = 2            | 3 =          | 1-5 acres | 3-9 =   | Moderate        | = 3              |
| High             | <u>-3</u>      | 1 =          | < 1 acre  | 10-15 = | High            | <u>-5</u>        |
| Exceptional      | = 4            |              |           | 20 =    | Except.         | = 10             |

Calculated Score = 15

4. Habitat for Federally-listed Endangered, Threatened, Proposed, or Candidate (C1 or C2) Species

| Wetland Receives:                                             | Score     | Calcul. | Rating          | Point Value      |
|---------------------------------------------------------------|-----------|---------|-----------------|------------------|
| Regular use by such species or is designated critical habitat | = 10      | Score = | <u>(circle)</u> | <u>=(circle)</u> |
| Occasional use (e.g., infrequent, sporadic use)               | <u>-5</u> | 0 =     | None            | = 0              |
| Incidental use (e.g., chance, inconsequential use)            | = 3       | 3 =     | Moderate        | = 3              |
| No known or suspected use                                     | = 0       | 5 =     | High            | <u>-5</u>        |
|                                                               |           | 10 =    | Except.         | = 10             |

Habitat for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program (Not including those addressed under #4 above.)

| Wetland Provides:                                                     | Score     | Calcul. | Rating          | Point Value      |
|-----------------------------------------------------------------------|-----------|---------|-----------------|------------------|
| Breeding or other crucial habitat                                     | = 10      | Score = | <u>(circle)</u> | <u>=(circle)</u> |
| Habitat that is used regularly                                        | = 5       | 0 =     | None            | = 0              |
| Habitat that is used occasionally (e.g., infrequent, sporadic use)    | <u>-3</u> | 1 =     | Low             | = 1              |
| Habitat that is used incidentally (e.g., chance, inconsequential use) | = 1       | 3 =     | Moderate        | <u>-3</u>        |
| No known or suspected habitat                                         | = 0       | 5 =     | High            | = 5              |
|                                                                       |           | 10 =    | Except.         | = 10             |

# 6. General Wildlife & Fish Habitat (Non-T&E)

Criteria (apply to each group)

Minimal or significant use = 5  
 Minimal or moderate use = 3  
 Little or no perceived use = 1

M Songbirds  
L Raptors  
S Waterfowl  
S Marsh & Shorebirds  
L Rodents & Insectivores  
L Carnivores  
M Ungulates  
M Herpetiles  
L Fish  
S Invertebrates

Criteria II (apply to entire group)

≥ 6 S's or ≥ 8 M's  
 3-5 S's or 6-7 M's  
 1-2 S's or 3-5 M's  
 No S's and ≤ 2 M's

Score

= 10  
 = 5  
 = 3  
 = 1

Calculated Score = 5

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 1 = Low = 1  
 3 = Moderate = 3  
 5 = High = 5  
 10 = Except = 10

Control & Storage (Function of floodwater proximity, wetland size, vegetative composition, and flow restriction; Applies only to sites within a discernable floodplain [based on floodwater proximity, flood deposits, FEMA maps, etc.]; If does not apply, Point Value is 0.)

(1 Multiply 1)

Wetland Size  
 > 5 acres = 5  
 1-5 acres = 3  
 < 1 acre = 1

Vegetative Composition  
 > 50% forested or shrub or combination  
 10-50% forested or shrub or combination  
 < 10% forested or shrub or combination

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 0 = None = 0  
 2-3 = Low = 1  
 4-8 = Moderate = 3  
 10-16 = High = 5  
 17 = Except = 10

Flow Restriction  
 Outlet restricted or absent = 2  
 Outlet unrestricted = 1

Calculated Score (A + B) = 16

Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

(1 Multiply 1)

Exposed to Receive Sediments/Pollutants  
 Minimal accumulations evident or likely  
 Moderate accumulations evident or likely  
 Minimal accumulations not evident and unlikely

Score  
 = 2  
 = 1  
 = 0.5

Emergent Vegetative Components  
 > 50% emergent  
 10-50% emergent  
 < 10% emergent

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 .5-1.5 = Low = 1  
 2-3 = Moderate = 3  
 5-10 = High = 5

Calculated Score = 5

Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake [subject to wave action], river, stream, or other defined drainage; If does not apply, Point Value is 0.)

Size of Rooted Vegetative Components  
 > 5 acres = 5  
 1-5 acres = 3  
 < 1 acre = 1

Calculated Score = 5

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 0 = None = 0  
 1 = Low = 1  
 3 = Moderate = 3  
 5 = High = 5

Nutrient Cycling (Potential to accumulate, process, and export nutrients [expressed as organic matter].)

(1 Multiply 1)

Nutrient Matter Accumulation  
 Minimal accumulation evident  
 No accumulation evident

Score  
 = 3  
 = 1

Proximity to Other Aquatic Habitats  
 Adjacent or contiguous to other aquatic habitats  
 Isolated basin

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 1 = Low = 1  
 3 = Moderate = 3  
 9 = High = 5

Calculated Score = 9

Groundwater Discharge/Recharge

Known discharge or recharge area  
 Discharge immediately below a dam  
 Suspected discharge or recharge  
 due to:  
 an outlet, but no inlet

Criteria  
 A, B, or C true  
 D true, all others false  
 A-D false.

Score  
 = 5  
 = 3  
 = 1

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 1 = Low = 1  
 3 = Moderate = 3  
 5 = High = 5

Wetland Functionality (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

Frequency of Occurrence in Montana  
 Rare  
 Common  
 Abundant

Score  
 = 3  
 = 2  
 = 1

Replacement Potential  
 Irreplaceable ecological functions  
 Ecological functions replaceable with difficulty  
 Ecological functions readily replaceable

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 1-2 = Low = 1  
 3-6 = Moderate = 3  
 9-10 = High = 5  
 15 = Except = 10

Calculated Score = 6

Recreation/Education Potential (Subjective assessment of potential for boating, hunting, birdwatching, photography, and other recreation/education activities; remember to consider access restrictions.)

(1 Multiply 1)

Recreation Potential  
 High  
 Moderate  
 Low

Score  
 = 3  
 = 2  
 = 1

Education Potential  
 High  
 Moderate  
 Low

Calcul. Rating Point Value  
 Score = (circle) = (circle)  
 1-2 = Low = 1  
 3-6 = Moderate = 3  
 9-10 = High = 5

## Function &amp; Value Summary and Overall Wetland Rating

for Wetland Site(s): McKAY CREEK

| Function & Value Parameters               | Point Values | Ratings |
|-------------------------------------------|--------------|---------|
| 1. Wetland Size                           | 10           | EXCEPT. |
| 2. Habitat Diversity                      | 5            | HIGH    |
| 3. Food Chain Support                     | 5            | HIGH    |
| 4. T&E/Proposed/Candidate Species Habitat | 5            | HIGH    |
| 5. MNHP Species Habitat                   | 3            | MOD     |
| 6. General Fish & Wildlife Habitat        | 5            | HIGH    |
| 7. Flood Control & Storage                | 5            | HIGH    |
| 8. Sediment Filtration                    | 5            | HIGH    |
| 9. Erosion Control                        | 5            | HIGH    |
| 10. Nutrient Cycling                      | 5            | HIGH    |
| 11. Groundwater Discharge/Recharge        | 5            | HIGH    |
| 12. Uniqueness                            | 3            | MOD     |
| 13. Recreation/Education Potential        | 5            | HIGH    |
| <b>TOTAL POINT VALUE</b>                  |              |         |

Overall Wetland Rating (Circle appropriate category based on the criteria outlined below):

I      II      III      IV

Category I Wetland - Must satisfy one of the following criteria:

- ♦ Total Point Value of 65 or more; or
- ♦ "Exceptional" ratings for T&E/Proposed/Candidate Species Habitat or Flood Control & Storage or Uniqueness.

Category II Wetland - Does not satisfy criteria for Category I and:

- ♦ Total Point Value of 40 - 64; or
- ♦ "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- ♦ "High" ratings for Food Chain Support or Uniqueness.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- ♦ Total Point Value less than 26; and
- ♦ "Low" ratings for Wetland Size and Habitat Diversity.

MDT WETLAND SITE EVALUATION FORM  
(Revised June 22, 1994)

Project Name: W. OF TROUT CREEK Number: STPP 6-1 (59) 15 C# 2133  
 Evaluation Date: 10-14-95 Evaluator(s): REDMOND/KEENE Site Name(s): UNAMED DRAINAGES  
 Site Location: MT 200 N. OF TROUT CREEK MT.

Estimated Total Wetland Size: 8 ACRES Estimated Size Within Proposed ROW: \_\_\_\_\_

Conditions During Evaluation: PRTY CLOUDY

Wetland Classification (from MDT Wetland Classification Scheme)

| Wetland Name (e.g.,<br>Saturated Flooded) | Wetland Type (e.g., Marsh) | Dominant Species    | Modifier (e.g., Impounded)<br>and/or Descriptor | % of Wetland |
|-------------------------------------------|----------------------------|---------------------|-------------------------------------------------|--------------|
| <u>SATURATED</u>                          | <u>EMERGENT MARSH</u>      | <u>TYPHA, CAREX</u> | <u>PARTLY DRAINED</u>                           | <u>100%</u>  |
|                                           |                            |                     |                                                 |              |
|                                           |                            |                     |                                                 |              |
|                                           |                            |                     |                                                 |              |
|                                           |                            |                     |                                                 |              |

Wetland Type(s) Is (are) locally (circle): Rare Common Abundant

Brief Descriptive Summary: THESE ARE MINOR DRAINAGE CROSSINGS THAT ARE SATURATED WITH PARTIALLY IMPOUNDED WATER, GROWING CATTAILS

Function and Values Assessment

1. Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

| Size          | Score      | Calcul.          | Rating     | Point Value |
|---------------|------------|------------------|------------|-------------|
| > 5 acres     | = 10       | Score = (circle) | = (circle) |             |
| 1 to 5 acres  | <u>= 5</u> | 1 =              | Low        | = 1         |
| 1/2 to 1 acre | = 3        | 3 =              | Moderate   | = 3         |
| < 1/2 acre    | = 1        | 5 =              | High       | <u>= 5</u>  |
|               |            | 10 =             | Except.    | = 10        |

2. Habitat Diversity (Function of wetland type diversity and presence of open water component.)

| of Wetland Types<br>(including open water types) | (1 Multiply 1) | Score      | Open Water | Calcul.          | Rating     | Point Value |
|--------------------------------------------------|----------------|------------|------------|------------------|------------|-------------|
| ≥ 3 types                                        | Score          | = 5        | Present    | Score = (circle) | = (circle) |             |
| 2 types                                          | <u>= 3</u>     | 2 =        | Absent     | 1 =              | Low        | = 1         |
| ≤ 1 type                                         | = 1            | <u>= 1</u> |            | 2-3 =            | Moderate   | <u>= 3</u>  |
|                                                  |                |            |            | 5-6 =            | High       | = 5         |
|                                                  |                |            |            | 10 =             | Except.    | = 10        |

Calculated Score =

3. Habitat Support (Function of habitat diversity (HD) and wetland size)

| Rating          | (1 Multiply 1) | Score      | Size      | Calcul.          | Rating     | Point Value |
|-----------------|----------------|------------|-----------|------------------|------------|-------------|
| <u>#2 above</u> | Score          | = 1        | > 5 acres | Score = (circle) | = (circle) |             |
| Low             | <u>= 1</u>     | <u>5 =</u> | 1-5 acres | 1-2 =            | Low        | = 1         |
| Moderate        | = 2            | 3 =        | < 1 acre  | 3-9 =            | Moderate   | <u>= 3</u>  |
| High            | = 3            | 1 =        |           | 10-15 =          | High       | = 5         |
| Exceptional     | = 4            |            |           | 20 =             | Except.    | = 10        |

Calculated Score = 5

4. Habitat for Federally-listed Endangered, Threatened, Proposed, or Candidate (G1 or G2) Species

| Wetland Receptor                                              | Score      | Calcul.          | Rating     | Point Value |
|---------------------------------------------------------------|------------|------------------|------------|-------------|
| Regular use by such species or is designated critical habitat | = 10       | Score = (circle) | = (circle) |             |
| Occasional use (e.g., infrequent, sporadic use)               | = 5        | 0 =              | None       | = 0         |
| Incidental use (e.g., chance, inconsequential use)            | <u>= 3</u> | 3 =              | Moderate   | <u>= 3</u>  |
| Unknown or suspected use                                      | = 0        | 5 =              | High       | = 5         |
|                                                               |            | 10 =             | Except.    | = 10        |

5. Habitat for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program (Not including those addressed under #4 above.)

| Wetland Provides                                                      | Score      | Calcul.          | Rating     | Point Value |
|-----------------------------------------------------------------------|------------|------------------|------------|-------------|
| Habitat or other crucial habitat                                      | = 10       | Score = (circle) | = (circle) |             |
| Habitat that is used regularly                                        | = 5        | 0 =              | None       | = 0         |
| Habitat that is used occasionally (e.g., infrequent, sporadic use)    | = 3        | 1 =              | Low        | <u>= 1</u>  |
| Habitat that is used incidentally (e.g., chance, inconsequential use) | <u>= 1</u> | 3 =              | Moderate   | = 3         |
| Unknown or suspected habitat                                          | = 0        | 5 =              | High       | = 5         |
|                                                                       |            | 10 =             | Except.    | = 10        |

## 6. General Wildlife & Fish Habits (Non-T&E)

### Criteria I (apply to each group)

|                            |     |
|----------------------------|-----|
| Land or significant use    | = 5 |
| Seasonal or moderate use   | = 3 |
| Little or no perceived use | = 1 |

### Criteria II (apply to entire group)

|                          |      |
|--------------------------|------|
| M Songbirds              | = 10 |
| L Raptors                | = 5  |
| L Waterfowl              | = 3  |
| L Marsh & Shorebirds     | = 1  |
| M Rodents & Insectivores |      |
| M Carnivores             |      |
| S Ungulates              |      |
| M Herptiles              |      |
| L Fish                   |      |
| S Invertebrates          |      |

Calculated Score = 3

### Score

|      |
|------|
| = 10 |
| = 5  |
| = 3  |
| = 1  |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |
| 10 =    | Except   | = 10        |

## 7. Flood Control or Storage (Function of floodwater proximity, wetland size, vegetative composition, and flow restriction; Applies only to sites within a discernable floodplain (based on floodwater proximity, flood deposits, FEMA maps, etc.); If does not apply, Point Value is 0.)

(1 Multiply 1)

### A. Wetland Size

| Score     | Score |
|-----------|-------|
| > 5 acres | 5     |
| 1-5 acres | 3     |
| < 1 acre  | 1     |

### Vegetative Composition

|                                         |
|-----------------------------------------|
| > 50% forested or shrub or combination  |
| 10-50% forested or shrub or combination |
| < 10% forested or shrub or combination  |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 0 =     | None     | = 0         |
| 2-3 =   | Low      | = 1         |
| 4-8 =   | Moderate | = 3         |
| 10-16 = | High     | = 5         |
| 17 =    | Except   | = 10        |

### B. Flow Restriction

| Score                       |
|-----------------------------|
| Outlet restricted or absent |
| Outlet unrestricted         |

Calculated Score (A + B) = 16

## 8. Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component)

(1 Multiply 1)

### Ability to Receive Sediment/Pollutants

|                                             |
|---------------------------------------------|
| Substantial accumulations evident or likely |
| Moderate accumulations evident or likely    |
| Accumulations not evident and unlikely      |

### Emergent Vegetative Component

|                 |
|-----------------|
| > 50% emergent  |
| 10-50% emergent |
| < 10% emergent  |

| Calcul.  | Rating   | Point Value |
|----------|----------|-------------|
| Score =  | (circle) | (circle)    |
| .5-1.5 = | Low      | = 1         |
| 2-3 =    | Moderate | = 3         |
| 5-10 =   | High     | = 5         |

## 9. Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake (subject to wave action), river, stream, or other defined drainage; If does not apply, Point Value is 0.)

### Size of Rooted Vegetative Component

| Score     |
|-----------|
| > 5 acres |
| 1-5 acres |
| < 1 acre  |

Calculated Score =

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 0 =     | None     | = 0         |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |

## 10. Nutrient Cycling (Potential to accumulate, process, and export nutrients (expressed as organic matter).)

(1 Multiply 1)

### Organic Matter Accumulation

|                                   |
|-----------------------------------|
| Substantial accumulation evident  |
| Little to no accumulation evident |

### Proximity to Other Aquatic Habitats

|                                                  |
|--------------------------------------------------|
| Adjacent or contiguous to other aquatic habitats |
| Isolated basin                                   |

Calculated Score = 3

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 9 =     | High     | = 5         |

## 11. Groundwater Discharge/Recharge

### Wetland:

A. Is a known discharge or recharge area occurs immediately below a dam

C. Is a suspected discharge or recharge

area due to:

D. has an outlet, but no inlet

### Criteria

A, B, or C true

D true, all others false

A-D false.

### Score

= 5

= 3

= 1

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |

## 12. Uniqueness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

### Frequency of Occurrence in Montana

| Score    | Score |
|----------|-------|
| Rare     | 5     |
| Common   | 3     |
| Abundant | 1     |

### Replacement Potential

|                                                  |
|--------------------------------------------------|
| Irreplaceable ecological functions               |
| Ecological functions replaceable with difficulty |
| Ecological functions readily replaceable         |

Calculated Score = 2

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 1-2 =   | Low      | = 1         |
| 3-6 =   | Moderate | = 3         |
| 9-10 =  | High     | = 5         |
| 15 =    | Except   | = 10        |

## 13. Recreation/Education Potential (Subjective assessment of potential for boating, hunting, birdwatching, photography, and other recreation/education activities; remember to consider access restrictions.)

(1 Multiply 1)

### Recreation Potential

| Score    | Score |
|----------|-------|
| High     | 5     |
| Moderate | 3     |
| Low      | 1     |

### Education Potential

|          |
|----------|
| High     |
| Moderate |
| Low      |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | (circle)    |
| 1-2 =   | Low      | = 1         |
| 3-6 =   | Moderate | = 3         |
| 9-15 =  | High     | = 5         |

W. OF TROUT CREEK

Function & Value Summary and Overall Wetland Rating

for Wetland Site(s): UN-NAMED DRAINAGE3

| Function & Value Parameters               | Point Values | Ratings |
|-------------------------------------------|--------------|---------|
| 1. Wetland Size                           | 5            | HIGH    |
| 2. Habitat Diversity                      | 3            | MOD     |
| 3. Food Chain Support                     | 3            | MOD     |
| 4. T&E/Proposed/Candidate Species Habitat | 3            | MOD     |
| 5. MNHP Species Habitat                   | 1            | LOW     |
| 6. General Fish & Wildlife Habitat        | 3            | MOD     |
| 7. Flood Control & Storage                | 5            | HIGH    |
| 8. Sediment Filtration                    | 5            | HIGH    |
| 9. Erosion Control                        | 0            | NONE    |
| 10. Nutrient Cycling                      | 3            | MOD     |
| 11. Groundwater Discharge/Recharge        | 5            | HIGH    |
| 12. Uniqueness                            | 1            | LOW     |
| 13. Recreation/Education Potential        | 1            | LOW     |
| TOTAL POINT VALUE                         | 38           |         |

Overall Wetland Rating (Circle appropriate category based on the criteria outlined below):

I

II

III

IV

Category I Wetland - Must satisfy one of the following criteria:

- ♦ Total Point Value of 65 or more; or
- ♦ "Exceptional" ratings for T&E/Proposed/Candidate Species Habitat or Flood Control & Storage or Uniqueness.

Category II Wetland - Does not satisfy criteria for Category I and:

- ♦ Total Point Value of 40 - 64; or
- ♦ "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- ♦ "High" ratings for Food Chain Support or Uniqueness.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- ♦ Total Point Value less than 26; and
- ♦ "Low" ratings for Wetland Size and Habitat Diversity.

Project Name: W. OF TROUT CREEK Number: STPP 6-1 (59) 15 C# 2133  
 Evaluation Date: 10-14-15 Evaluator(s): REDMOND/KEENE Site Name(s): ROCK CREEK  
 Site Location: MT 200 NORTH OF TROUT CREEK MT.  
 Estimated Total Wetland Size: 5 ACRES Estimated Size Within Proposed ROW: \_\_\_\_\_  
 Conditions During Evaluation: PRTLY CLOUDY / DRY

Wetland Classification (from MDT Wetland Classification Scheme)

| Water Regime (e.g., Permanently flooded) | Wetland Type (e.g., Marsh) | Dominant Species | Modifier (e.g., Impounded) and/or Descriptor | % of Wetland |
|------------------------------------------|----------------------------|------------------|----------------------------------------------|--------------|
| SATURATED                                | FORESTED, DEcidUOUS        | ALNUS, POPULUS   |                                              | 80%          |
| SATURATED                                | SHrub, MIXED               | CORNUS, SALIX    |                                              | 10%          |
| PERM FLOODED                             | OPEN WATER                 | N/A              |                                              | 10%          |
|                                          |                            |                  |                                              |              |
|                                          |                            |                  |                                              |              |

Wetland Type(s) is (are) locally (circle): Rare Common Abundant

Brief Descriptive Summary: THIS IS A RIPARIAN AREA W LATERAL LOW SPOTS AND MICRO TRIBUTARIES DOMINATED BY DECIDUOUS TREES AND SHRUBS

Functions and Values Assessment

1. Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

| Size          | Score      | Calcul. | Rating   | Point Value |
|---------------|------------|---------|----------|-------------|
| > 10 acres    | = 10       | Score = | (circle) | =(circle)   |
| 6 to 10 acres | = 5        | 1 =     | Low      | = 1         |
| 1 to 5 acres  | <u>= 3</u> | 3 =     | Moderate | <u>= 3</u>  |
| < 1 acre      | = 1        | 5 =     | High     | = 5         |
|               |            | 10 =    | Except.  | = 10        |

2. Habitat Diversity (Function of wetland type diversity and presence of open water component.)

| # of Wetland Types<br>(not including open water types) | (1 Multiply 1) | Score      | Open Water | Calcul. | Rating   | Point Value |
|--------------------------------------------------------|----------------|------------|------------|---------|----------|-------------|
| ≥ 3 types                                              |                | <u>= 5</u> | Present    | Score = | (circle) | =(circle)   |
| 2 types                                                |                | = 3        | Absent     | 1 =     | Low      | = 1         |
| ≤ 1 type                                               |                | = 1        |            | 2-3 =   | Moderate | = 3         |
|                                                        |                |            |            | 5-6 =   | High     | = 5         |
|                                                        |                |            |            | 10 =    | Except.  | <u>= 10</u> |
| Calculated Score = <u>10</u>                           |                |            |            |         |          |             |

3. Food Chain Support (Function of habitat diversity (HD) and wetland size)

| HD Rating                    | (1 Multiply 1) | Score      | Size      | Calcul. | Rating   | Point Value |
|------------------------------|----------------|------------|-----------|---------|----------|-------------|
| ≥ #2 above                   |                | Score      |           | Score = | (circle) | =(circle)   |
| Low                          |                | = 1        | > 5 acres | 1-2 =   | Low      | = 1         |
| Moderate                     |                | = 2        | 1-5 acres | 3-9 =   | Moderate | = 3         |
| High                         |                | <u>= 3</u> | < 1 acre  | 10-15 = | High     | <u>= 5</u>  |
| Exceptional                  |                | <u>= 4</u> |           | 20 =    | Except.  | = 10        |
| Calculated Score = <u>12</u> |                |            |           |         |          |             |

4. Habitat for Federally-listed Endangered, Threatened, Proposed, or Candidate (C1 or C2) Species

| Wetland Relevance                                             | Score      | Calcul. | Rating   | Point Value |
|---------------------------------------------------------------|------------|---------|----------|-------------|
| Regular use by such species or is designated critical habitat | = 10       | Score = | (circle) | =(circle)   |
| Occasional use (e.g., infrequent, sporadic use)               | <u>= 5</u> | 0 =     | None     | = 0         |
| Incidental use (e.g., chance, inconsequential use)            | = 3        | 3 =     | Moderate | = 3         |
| No known or suspected use                                     | = 0        | 5 =     | High     | <u>= 5</u>  |
|                                                               |            | 10 =    | Except.  | = 10        |

Habitat for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program (Not including those addressed under #4 above.)

| Wetland Provider                                                      | Score      | Calcul. | Rating   | Point Value |
|-----------------------------------------------------------------------|------------|---------|----------|-------------|
| Breeding or other crucial habitat                                     | = 10       | Score = | (circle) | =(circle)   |
| Habitat that is used regularly                                        | <u>= 5</u> | 0 =     | None     | = 0         |
| Habitat that is used occasionally (e.g., infrequent, sporadic use)    | = 3        | 1 =     | Low      | = 1         |
| Habitat that is used incidentally (e.g., chance, inconsequential use) | = 1        | 3 =     | Moderate | = 3         |
| No known or suspected habitat                                         | = 0        | 5 =     | High     | <u>= 5</u>  |
|                                                                       |            | 10 =    | Except.  | = 10        |

# 6. General Wildlife & Fish Habitat (Non-T&E)

## Criteria I (apply to each group)

Minimal or significant use = 5  
Minimal or moderate use = M  
Minimal or no perceived use = L

## M Songbirds

M Raptors

L Waterfowl

L Marsh & Shorebirds

M Rodents & Insectivores

M Carnivores

S Ungulates

M Herpetiles

S Fish

M Invertebrates

## Criteria II (apply to entire group)

≥ 6 S's or ≥ 8 M's

3-5 S's or 6-7 M's

1-2 S's or 3-5 M's

No S's and ≤ 2 M's

Calculated Score = 5

## Score

= 10

= 5

= 3

= 1

Calcul. Rating Point Value

Score = (circle) = (circle)

1 = Low = 1

3 = Moderate = 3

5 = High = 5

10 = Except = 10

## Field Control of Storage (Function of floodwater proximity, wetland size, vegetative composition, and flow restriction; Applies only to sites within a discernable floodplain [based on floodwater proximity, flood deposits, FEMA maps, etc.]; If does not apply, Point Value is 0.)

### (1 Multiply 1)

#### Wetland Size

> 5 acres

1-5 acres

< 1 acre

Score

= 5

= 3

= 1

Score

= 3

= 2

= 1

#### Vegetative Composition

> 50% forested or shrub or combination

10-50% forested or shrub or combination

< 10% forested or shrub or combination

#### Flow Restriction

Score

= 2

= 1

Calculated Score (A + B) = 16

Calcul. Rating Point Value

Score = (circle) = (circle)

0 = None = 0

2-3 = Low = 1

4-8 = Moderate = 3

10-16 = High = 5

17 = Except = 10

## Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

### (1 Multiply 1)

#### Ability to Receive Sediment/Pollutants

Minimal accumulations evident or likely

Local accumulations evident or likely

Minimal accumulations not evident and unlikely

Score

= 2

= 1

= 0.5

Score

= 5

= 3

= 1

#### Emergent Vegetative Component

> 50% emergent

10-50% emergent

< 10% emergent

Calculated Score = 2.5

Calcul. Rating Point Value

Score = (circle) = (circle)

0.5-1.5 = Low = 1

2-3 = Moderate = 3

5-10 = High = 5

## Flow Control (Flow or wave dissipation; applies only if site is on shoreline of lake [subject to wave action], river,

stream, or other defined drainage; If does not apply, Point Value is 0.)

#### Size of Rooted Vegetative Component

> 5 acres

1-5 acres

< 1 acre

Score

= 5

= 3

= 1

Calculated Score = 3

Calcul. Rating Point Value

Score = (circle) = (circle)

0 = None = 0

1 = Low = 1

3 = Moderate = 3

5 = High = 5

## Nutrient Cycling (Potential to accumulate, process, and export nutrients [expressed as organic matter].)

### (1 Multiply 1)

#### Organic Matter Accumulation

Minimal accumulation evident

No accumulation evident

Score

= 3

= 1

Score

= 3

= 1

#### Proximity to Other Aquatic Habitats

Adjacent or contiguous to other aquatic habitats

Isolated basin

Calculated Score = 3

Calcul. Rating Point Value

Score = (circle) = (circle)

1 = Low = 1

3 = Moderate = 3

9 = High = 5

## Groundwater Discharge/Recharge

### Criteria

Known discharge or recharge area

Occurs immediately below a dam

Suspected discharge or recharge

Due to:

an outlet, but no inlet

### Criteria

A, B, or C true

D true, all others false

A-D false.

### Score

= 5

= 3

= 1

Calcul. Rating Point Value

Score = (circle) = (circle)

1 = Low = 1

3 = Moderate = 3

5 = High = 5

## Uniqueness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

### (1 Multiply 1)

#### Frequency of Occurrence in Montana

Rare

Common

Abundant

Score

= 3

= 2

= 1

Score

= 5

= 3

= 1

#### Replacement Potential

Irreplaceable ecological functions

Ecological functions replaceable with difficulty

Ecological functions readily replaceable

Calculated Score = 2

Calcul. Rating Point Value

Score = (circle) = (circle)

1-2 = Low = 1

3-6 = Moderate = 3

9-10 = High = 5

15 = Except = 10

## Recreation/Education Potential (Subjective assessment of potential for boating, hunting, birdwatching, photography, and other recreation/education activities; remember to consider access restrictions.)

### (1 Multiply 1)

#### Recreation Potential

High

Moderate

Low

Score

= 3

= 2

= 1

Score

= 5

= 3

= 1

#### Education Potential

High

Moderate

Low

Calcul. Rating Point Value

Score = (circle) = (circle)

1-2 = Low = 1

3-6 = Moderate = 3

W. OF TROUT CREEK

Function & Value Summary and Overall Wetland Rating

for Wetland Site(s): ROCK CREEK

| Function & Value Parameters               | Point Values | Ratings |
|-------------------------------------------|--------------|---------|
| 1. Wetland Size                           | 3            | MOD     |
| 2. Habitat Diversity                      | 10           | EXEPT.  |
| 3. Food Chain Support                     | 5            | HIGH    |
| 4. T&E/Proposed/Candidate Species Habitat | 5            | HIGH    |
| 5. MNHP Species Habitat                   | 5            | HIGH    |
| 6. General Fish & Wildlife Habitat        | 5            | HIGH    |
| 7. Flood Control & Storage                | 10           | EXEPT   |
| 8. Sediment Filtration                    | 3            | MOD     |
| 9. Erosion Control                        | 3            | MOD     |
| 10. Nutrient Cycling                      | 3            | MOD     |
| 11. Groundwater Discharge/Recharge        | 5            | HIGH    |
| 12. Uniqueness                            | 1            | LOW     |
| 13. Recreation/Education Potential        | 3            | MOD     |
| TOTAL POINT VALUE                         | 61           |         |

Overall Wetland Rating (Circle appropriate category based on the criteria outlined below):

I II III IV

Category I Wetland - Must satisfy one of the following criteria:

- ♦ Total Point Value of 65 or more; or
- ♦ "Exceptional" ratings for T&E/Proposed/Candidate Species Habitat or Flood Control & Storage or Uniqueness.

Category II Wetland - Does not satisfy criteria for Category I and:

- ♦ Total Point Value of 40 - 64; or
- ♦ "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- ♦ "High" ratings for Food Chain Support or Uniqueness.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- ♦ Total Point Value less than 26; and
- ♦ "Low" ratings for Wetland Size and Habitat Diversity.

## MDT WETLAND SITE EVALUATION FORM

(Revised June 22, 1994)

W. OF TROUT CREEK Number: STPP 6-1 (59) 15 C#2133  
 Date: 10-14-95 Evaluator(s): REDMOND/KEENE Site Name(s): CABINET GORGE RESERVOIR/SLOUGH  
 Locality: MT 200 AT NOXON MONTANA  
 Estimated Wetland Size: > 10 ACRES Estimated Size Within Proposed ROW: \_\_\_\_\_

During Evaluation: PARTLY SUNNY / DRY

## Wetland Classification (from MDT Wetland Classification Scheme)

| Wetland Type (e.g., Marsh) | Dominant Species         | Modifier (e.g., Impounded) and/or Descriptor | % of Wetland |
|----------------------------|--------------------------|----------------------------------------------|--------------|
| EMERGENT MARSH             | TYPHA, SPARGAN, PHALARIS |                                              | 75%          |
| FORESTED, DEWID.           | CORNUS, POPULUS, ALNUS   |                                              | 15%          |
| OPEN WATER                 |                          | DEEP WATER                                   | 10%          |

Wetland Type(s) is (are) locally (circle): Rare Common Abundant

Descriptive Summary: THESE ARE LAKE EDGE AND SLOUGH WETLANDS ASSOCIATED WITH THE RESERVOIR.

## Wetland Values Assessment

Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

| Score | Calcul. | Rating   | Point Value |
|-------|---------|----------|-------------|
| 10 =  | Score = | (circle) | (circle)    |
| 5 =   | 1 =     | Low      | = 1         |
| 3 =   | 3 =     | Moderate | = 3         |
| 1 =   | 5 =     | High     | = 5         |
|       | 10 =    | Except.  | = 10        |

Wetland Diversity (Function of wetland type diversity and presence of open water component.)

| Wetland Types (1 Multiply 1) | Score | Open Water | Calcul. | Rating   | Point Value |
|------------------------------|-------|------------|---------|----------|-------------|
| 3 types                      | 5 =   | Present    | Score = | (circle) | (circle)    |
| 2 types                      | 3 =   | Absent     | 1 =     | Low      | = 1         |
| 1 type                       | 1 =   |            | 2-3 =   | Moderate | = 3         |
|                              |       |            | 5-6 =   | High     | = 5         |
|                              |       |            | 10 =    | Except.  | = 10        |

Calculated Score = 10

Wetland Support (Function of habitat diversity [HD] and wetland size)

| Wetland Size (1 Multiply 1) | Score | Size      | Calcul. | Rating   | Point Value |
|-----------------------------|-------|-----------|---------|----------|-------------|
| 2+ acres                    | 5 =   | > 5 acres | Score = | (circle) | (circle)    |
| 1-5 acres                   | 3 =   | 1-5 acres | 1-2 =   | Low      | = 1         |
| < 1 acre                    | 1 =   | < 1 acre  | 3-9 =   | Moderate | = 3         |
|                             |       |           | 10-15 = | High     | = 5         |
|                             |       |           | 20 =    | Except.  | = 10        |

Calculated Score = 20

Wetland Use for Federally-listed Endangered, Threatened, Proposed, or Candidate (C1 or C2) Species

| Wetland Use                                           | Score | Calcul. | Rating   | Point Value |
|-------------------------------------------------------|-------|---------|----------|-------------|
| use by such species or is designated critical habitat | 10 =  | Score = | (circle) | (circle)    |
| occasional use (e.g., infrequent, sporadic use)       | 5 =   | 0 =     | None     | = 0         |
| chance, inconsequential use                           | 3 =   | 3 =     | Moderate | = 3         |
| known or suspected use                                | 1 =   | 5 =     | High     | = 5         |
|                                                       |       | 10 =    | Except.  | = 10        |

Wetland Use for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program (Not including those addressed under #4 above.)

| Wetland Use                                           | Score | Calcul. | Rating   | Point Value |
|-------------------------------------------------------|-------|---------|----------|-------------|
| use by such species or is designated critical habitat | 10 =  | Score = | (circle) | (circle)    |
| occasional use (e.g., infrequent, sporadic use)       | 5 =   | 0 =     | None     | = 0         |
| chance, inconsequential use                           | 3 =   | 1 =     | Low      | = 1         |
| known or suspected use                                | 1 =   | 3 =     | Moderate | = 3         |
|                                                       |       | 5 =     | High     | = 5         |
|                                                       |       | 10 =    | Except.  | = 10        |

# 6. General Wildlife & Fish Habitat (Non-T&E)

## Criteria I (apply to each group)

|                            |     |
|----------------------------|-----|
| Minimal or significant use | = 5 |
| Minimal or moderate use    | = 3 |
| Little or no perceived use | = 1 |

## Criteria II (apply to entire group)

|                          |                    |
|--------------------------|--------------------|
| M Songbirds              | 2-6 S's or 2-8 M's |
| M Raptors                | 3-5 S's or 6-7 M's |
| S Waterfowl              | 1-2 S's or 3-5 M's |
| S Marsh & Shorebirds     | No S's and 2 M's   |
| M Rodents & Insectivores |                    |
| L Carnivores             |                    |
| M Ungulates              |                    |
| M Herpetiles             |                    |
| S Fish                   |                    |
| M Invertebrates          |                    |

## Score

|      |
|------|
| = 10 |
| = 5  |
| = 3  |
| = 1  |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |
| 10 =    | Except   | = 10        |

Calculated Score = 5

# 7. Flood Control & Storage (Function of floodwater proximity, wetland size, vegetative composition, and flow restriction; Applies only to sites within a discernable floodplain [based on floodwater proximity, flood deposits, FEMA maps, etc.]; If does not apply, Point Value is 0.)

(1 Multiply 1)

## A. Wetland Size

| Wetland Size | Score |
|--------------|-------|
| > 5 acres    | 5     |
| 1-5 acres    | 3     |
| < 1 acre     | 1     |

## Vegetative Composition

|                                         |
|-----------------------------------------|
| > 50% forested or shrub or combination  |
| 10-50% forested or shrub or combination |
| < 10% forested or shrub or combination  |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 0 =     | None     | = 0         |
| 2-3 =   | Low      | = 1         |
| 4-8 =   | Moderate | = 3         |
| 10-16 = | High     | = 5         |
| 17 =    | Except   | = 10        |

Calculated Score (A + B) = 16

## B. Flow Restriction

| Flow Restriction            | Score |
|-----------------------------|-------|
| Outlet restricted or absent | 2     |
| Outlet unrestricted         | 1     |

# 8. Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

(1 Multiply 1)

## Ability to Receive Sediment/Pollutants

|                                             |
|---------------------------------------------|
| Substantial accumulations evident or likely |
| Moderate accumulations evident or likely    |
| Accumulations not evident and unlikely      |

## Emergent Vegetative Component

|                 |
|-----------------|
| > 50% emergent  |
| 10-50% emergent |
| < 10% emergent  |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 0-1.5 = | Low      | = 1         |
| 2-3 =   | Moderate | = 3         |
| 5-10 =  | High     | = 5         |

Calculated Score = 5

# 9. Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake [subject to wave action], river, stream, or other defined drainage; If does not apply, Point Value is 0.)

## Size of Rooted Vegetative Component

| Size of Rooted Vegetative Component | Score |
|-------------------------------------|-------|
| > 5 acres                           | 5     |
| 1-5 acres                           | 3     |
| < 1 acre                            | 1     |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 0 =     | None     | = 0         |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |

Calculated Score = 5

# 10. Nutrient Cycling (Potential to accumulate, process, and export nutrients [expressed as organic matter].)

(1 Multiply 1)

## Organic Matter Accumulation

|                                   |
|-----------------------------------|
| Substantial accumulation evident  |
| Little to no accumulation evident |

## Proximity to Other Aquatic Habitats

|                                                  |
|--------------------------------------------------|
| Adjacent or contiguous to other aquatic habitats |
| Isolated basin                                   |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 9 =     | High     | = 5         |

Calculated Score = 9

# 11. Groundwater Discharge/Recharge

## Wetland:

A. Is a known discharge or recharge area occurs immediately below a dam

## Criteria

A, B, or C true

## Score

5

C. Is a suspected discharge or recharge area due to:

D true, all others false

3

D. has an outlet, but no inlet

A-D false.

1

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1 =     | Low      | = 1         |
| 3 =     | Moderate | = 3         |
| 5 =     | High     | = 5         |

# 12. Uniqueness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

## Frequency of Occurrence in Montana

| Frequency of Occurrence in Montana | Score |
|------------------------------------|-------|
| Rare                               | 3     |
| Common                             | 2     |
| Abundant                           | 1     |

## Replacement Potential

|                                                  |
|--------------------------------------------------|
| Irreplaceable ecological functions               |
| Ecological functions replaceable with difficulty |
| Ecological functions readily replaceable         |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1-2 =   | Low      | = 1         |
| 3-6 =   | Moderate | = 3         |
| 9-10 =  | High     | = 5         |
| 15 =    | Except   | = 10        |

Calculated Score = 6

# 13. Recreation/Education Potential (Subjective assessment of potential for boating, hunting, birdwatching, photography, and other recreation/education activities; remember to consider access restrictions.)

(1 Multiply 1)

## Recreation Potential

| Recreation Potential | Score |
|----------------------|-------|
| High                 | 3     |
| Moderate             | 2     |
| Low                  | 1     |

## Education Potential

| Education Potential | Score |
|---------------------|-------|
| High                | 3     |
| Moderate            | 2     |
| Low                 | 1     |

| Calcul. | Rating   | Point Value |
|---------|----------|-------------|
| Score = | (circle) | =(circle)   |
| 1-2 =   | Low      | = 1         |
| 3-6 =   | Moderate | = 3         |

# 6. General Wildlife & Fish Habitat (Non-T&E)

Criteria I (apply to each group)

Minimal or significant use = S  
Minimal or moderate use = M  
Minimal or no perceived use = L

L Songbirds  
L Raptors  
L Waterfowl  
L Marsh & Shorebirds  
M Rodents & Insectivores  
L Carnivores  
M Ungulates  
M Herpetiles  
L Fish  
M Invertebrates

Criteria II (apply to entire group)

≥ 6 S's or ≥ 8 M's  
3-5 S's or 6-7 M's  
1-2 S's or 3-5 M's  
No S's and ≤ 2 M's

Calculated Score = 3

Score

= 10  
= 5  
= 3  
= 1

Calcul. Rating Point Value  
Score = (circle) = (circle)  
1 = Low = 1  
3 = Moderate = 3  
5 = High = 5  
10 = Except = 10

7. Use Control or Storage (Function of floodwater proximity, wetland size, vegetative composition, and flow restriction; Applies only to sites within a discernable floodplain [based on floodwater proximity, flood deposits, FEMA maps, etc.]; If does not apply, Point Value is 0.)

(1 Multiply 1)

Wetland Size Score Score Vegetative Composition  
> 5 acres = 5 3 = > 50% forested or shrub or combination  
1-5 acres = 3 2 = 10-50% forested or shrub or combination  
< 1 acre = 1 1 = < 10% forested or shrub or combination

Flow Restriction Score  
Outlet restricted or absent = 2  
Outlet unrestricted = 1  
Calculated Score (A + B) = 1

Calcul. Rating Point Value  
Score = (circle) = (circle)  
0 = None = 0  
2-3 = Low = 1  
4-8 = Moderate = 3  
10-16 = High = 5  
17 = Except = 10

8. Sediment Filtration and Water Purification (Function of proximity to potential sediment/pollutant source and emergent vegetative component.)

(1 Multiply 1)

Method to Receive Sediment/Pollutants  
Substantial accumulations evident or likely  
Moderate accumulations evident or likely  
Accumulations not evident and unlikely

Score Score Emergent Vegetative Component  
= 2 5 > 50% emergent  
= 1 3 = 10-50% emergent  
= 0.5 1 = < 10% emergent  
Calculated Score = 10

Calcul. Rating Point Value  
Score = (circle) = (circle)  
.5-1.5 = Low = 1  
2-3 = Moderate = 3  
5-10 = High = 5

9. Erosion Control (Flow or wave dissipation; applies only if site is on shoreline of lake (subject to wave action), river, stream, or other defined drainage; If does not apply, Point Value is 0.)

Size of Rooted Vegetative Component Score  
> 5 acres = 5  
1-5 acres = 3  
< 1 acre = 1  
Calculated Score = 1

Calcul. Rating Point Value  
Score = (circle) = (circle)  
0 = None = 0  
1 = Low = 1  
3 = Moderate = 3  
5 = High = 5

10. Nutrient Cycling (Potential to accumulate, process, and export nutrients [expressed as organic matter].)

(1 Multiply 1)

Organic Matter Accumulation Score Score Proximity to Other Aquatic Habitats  
Substantial accumulation evident = 3 3 = Adjacent or contiguous to other aquatic habitats  
Minimal or no accumulation evident = 1 1 Isolated basin  
Calculated Score = 3

Calcul. Rating Point Value  
Score = (circle) = (circle)  
1 = Low = 1  
3 = Moderate = 3  
9 = High = 5

11. Groundwater Discharge/Recharge

Wetland:  
A. Known discharge or recharge area  
B. Wetlands immediately below a dam  
C. Suspected discharge or recharge  
D. Due to:  
E. An outlet, but no inlet

Criteria Score  
A, B, or C true = 5  
D true, all others false = 3  
A-D false = 1

Calcul. Rating Point Value  
Score = (circle) = (circle)  
1 = Low = 1  
3 = Moderate = 3  
5 = High = 5

12. Invasiveness (Function of relative abundance of wetland type in Montana and replacement potential of ecological functions.)

(1 Multiply 1)

Frequency of Occurrence in Montana Score Score Replacement Potential  
Rare = 3 5 = Irreplaceable ecological functions  
Common = 2 3 = Ecological functions replaceable with difficulty  
Abundant = 1 1 Ecological functions readily replaceable  
Calculated Score = 2

Calcul. Rating Point Value  
Score = (circle) = (circle)  
1-2 = Low = 1  
3-6 = Moderate = 3  
9-10 = High = 5  
15 = Except = 10

Recreation/Education Potential (Subjective assessment of potential for boating, hunting, birdwatching, photography, and other recreation/education activities; remember to consider access restrictions.)

(1 Multiply 1)

Recreation Potential Score Score Education Potential  
High = 3 5 = High  
Moderate = 2 3 = Moderate  
Low = 1 1 Low

Calcul. Rating Point Value  
Score = (circle) = (circle)  
1-2 = Low = 1  
3-6 = Moderate = 3  
9-10 = High = 5

W. OF TROUT CREEK  
Function & Value Summary and Overall Wetland Rating  
for Wetland Site(s): BORROW DITCH WETLANDS

| Function & Value Parameters               | Point Values | Ratings |
|-------------------------------------------|--------------|---------|
| 1. Wetland Size                           | 3            | MOD     |
| 2. Habitat Diversity                      | 1            | LOW     |
| 3. Food Chain Support                     | 3            | MOD     |
| 4. T&E/Proposed/Candidate Species Habitat | 0            | NONE    |
| 5. MNHP Species Habitat                   | 0            | NONE    |
| 6. General Fish & Wildlife Habitat        | 3            | MOD     |
| 7. Flood Control & Storage                | 0            | NONE    |
| 8. Sediment Filtration                    | 5            | HIGH    |
| 9. Erosion Control                        | 0            | NONE    |
| 10. Nutrient Cycling                      | 3            | MOD     |
| 11. Groundwater Discharge/Recharge        | 1            | LOW     |
| 12. Uniqueness                            | 1            | LOW     |
| 13. Recreation/Education Potential        | 1            | LOW     |
| TOTAL POINT VALUE                         | 21           |         |

Overall Wetland Rating (Circle appropriate category based on the criteria outlined below):

I                  II                  III                  IV

Category I Wetland - Must satisfy one of the following criteria:

- ♦ Total Point Value of 65 or more; or
- ♦ "Exceptional" ratings for T&E/Proposed/Candidate Species Habitat or Flood Control & Storage or Uniqueness.

Category II Wetland - Does not satisfy criteria for Category I and:

- ♦ Total Point Value of 40 - 64; or
- ♦ "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- ♦ "High" ratings for Food Chain Support or Uniqueness.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- ♦ Total Point Value less than 26; and
- ♦ "Low" ratings for Wetland Size and Habitat Diversity.

# W. OF TROUT CREEK

## Function & Value Summary and Overall Wetland Rating

for Wetland Site(s): CABINET GORGE RESERVOIR/SLOUGH

| Function & Value Parameters               | Point Values | Ratings |
|-------------------------------------------|--------------|---------|
| 1. Wetland Size                           | 10           | EXCEPT  |
| 2. Habitat Diversity                      | 10           | EXCEPT  |
| 3. Food Chain Support                     | 10           | EXCEPT  |
| 4. T&E/Proposed/Candidate Species Habitat | 5            | HIGH    |
| 5. MNHP Species Habitat                   | 5            | HIGH    |
| 6. General Fish & Wildlife Habitat        | 5            | HIGH    |
| 7. Flood Control & Storage                | 5            | HIGH    |
| 8. Sediment Filtration                    | 5            | HIGH    |
| 9. Erosion Control                        | 5            | HIGH    |
| 10. Nutrient Cycling                      | 5            | HIGH    |
| 11. Groundwater Discharge/Recharge        | 5            | HIGH    |
| 12. Uniqueness                            | 3            | MOD     |
| 13. Recreation/Education Potential        | 5            | HIGH    |
| <b>TOTAL POINT VALUE</b>                  | <b>70</b>    |         |

Overall Wetland Rating (Circle appropriate category based on the criteria outlined below):

I

II

III

IV

Category I Wetland - Must satisfy one of the following criteria:

- ♦ Total Point Value of 65 or more; or
- ♦ "Exceptional" ratings for T&E/Proposed/Candidate Species Habitat or Flood Control & Storage or Uniqueness.

Category II Wetland - Does not satisfy criteria for Category I and:

- ♦ Total Point Value of 40 - 64; or
- ♦ "Exceptional" ratings for MNHP Species Habitat or General Wildlife & Fish Habitat; or
- ♦ "High" ratings for Food Chain Support or Uniqueness.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- ♦ Total Point Value less than 26; and
- ♦ "Low" ratings for Wetland Size and Habitat Diversity.

Project Name: W. OF TROUT CREEK Number: STPP 6-1 (59) 15 C# 2133  
 Evaluation Date: 10-14-95 Evaluator(s): REDMONT/KRONE Site Name(s): BORROW DITCH WETLANDS  
 Site Location: MT. 200 N. OF TROUT CREEK INT.  
 Estimated Total Wetland Size: 4 ACRES Estimated Size Within Proposed ROW: \_\_\_\_\_  
 Conditions During Evaluation: PRTY CLOUDY / DRY

Wetland Classification (from MDT Wetland Classification Scheme)

| Water Regime (e.g., Permanently Flooded) | Wetland Type (e.g., Marsh) | Dominant Species              | Modifier (e.g., Impounded) and/or Descriptor | % of Wetland |
|------------------------------------------|----------------------------|-------------------------------|----------------------------------------------|--------------|
| <u>SATURATED</u>                         | <u>EMERGENT MARSH</u>      | <u>CAREX, TYPHA, AGROSTIS</u> | <u>IMPOUNDED</u>                             | <u>100%</u>  |
|                                          |                            |                               |                                              |              |
|                                          |                            |                               |                                              |              |
|                                          |                            |                               |                                              |              |
|                                          |                            |                               |                                              |              |

Wetland Type(s) is (are) locally (circle): Rare Common Abundant

Brief Descriptive Summary: THESE ARE ROADSIDE WETLANDS CREATED BY THE LOGGING OF DRAINAGE CULVERTS ETC.

Functions and Values Assessment

1. Wetland Size (All size criteria throughout the assessment refer to the size of the entire wetland.)

| Size          | Score | Calcul. | Rating   | Point Value |
|---------------|-------|---------|----------|-------------|
| > 10 acres    | = 10  | Score = | (circle) | =(circle)   |
| 6 to 10 acres | = 5   | 1 =     | Low      | = 1         |
| 1 to 5 acres  | = 3   | 3 =     | Moderate | = 3         |
| < 1 acre      | = 1   | 5 =     | High     | = 5         |
|               |       | 10 =    | Except.  | = 10        |

2. Habitat Diversity (Function of wetland type diversity and presence of open water component.)

| # of Wetland Types (not including open water types) | (1 Multiply 1) | Score | Open Water | Calcul. | Rating   | Point Value |
|-----------------------------------------------------|----------------|-------|------------|---------|----------|-------------|
| ≥ 3 types                                           |                | = 5   | Present    | Score = | (circle) | =(circle)   |
| 2 types                                             |                | = 3   | Absent     | 1 =     | Low      | = 1         |
| ≤ 1 type                                            |                | = 1   |            | 2-3 =   | Moderate | = 3         |
|                                                     |                |       |            | 5-6 =   | High     | = 5         |
|                                                     |                |       |            | 10 =    | Except.  | = 10        |

Calculated Score = 1

3. Food Chain Support (Function of habitat diversity [HD] and wetland size)

| HD Rating (1 Multiply 1) | Score | Size     | Calcul. | Rating   | Point Value |
|--------------------------|-------|----------|---------|----------|-------------|
| 1-2 above                | Score | Score    | Score = | (circle) | =(circle)   |
| Low                      | = 1   | 5 =      | 1-2 =   | Low      | = 1         |
| Moderate                 | = 2   | 3 =      | 3-9 =   | Moderate | = 3         |
| High                     | = 3   | 1 =      | 10-15 = | High     | = 5         |
| Exceptional              | = 4   | < 1 acre | 20 =    | Except.  | = 10        |

Calculated Score = 3

4. Habitat for Federally-listed Endangered, Threatened, Proposed, or Candidate (C1 or C2) Species

| Wetland Receiver                                              | Score | Calcul. | Rating   | Point Value |
|---------------------------------------------------------------|-------|---------|----------|-------------|
| Regular use by such species or is designated critical habitat | = 10  | Score = | (circle) | =(circle)   |
| Occasional use (e.g., infrequent, sporadic use)               | = 5   | 0 =     | None     | = 0         |
| Incidental use (e.g., chance, inconsequential use)            | = 3   | 3 =     | Moderate | = 3         |
| No known or suspected use                                     | = 0   | 5 =     | High     | = 5         |
|                                                               |       | 10 =    | Except.  | = 10        |

Habitat for Species Rated "S1", "S2", or "S3" by the Montana Natural Heritage Program (Not including those addressed under #4 above.)

| Wetland Provider                                                      | Score | Calcul. | Rating   | Point Value |
|-----------------------------------------------------------------------|-------|---------|----------|-------------|
| Breeding or other crucial habitat                                     | = 10  | Score = | (circle) | =(circle)   |
| Habitat that is used regularly                                        | = 5   | 0 =     | None     | = 0         |
| Habitat that is used occasionally (e.g., infrequent, sporadic use)    | = 3   | 1 =     | Low      | = 1         |
| Habitat that is used incidentally (e.g., chance, inconsequential use) | = 1   | 3 =     | Moderate | = 3         |
| No known or suspected habitat                                         | = 0   | 5 =     | High     | = 5         |
|                                                                       |       | 10 =    | Except.  | = 10        |







